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PROPER ALIGNMENT FOR FLIGHTLINE MAINTENANCE:

CREECH VS. MCPEAK

By

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BIOGRAPHY

UNITED STATES AIR FORCE

LIEUTENANT COLONEL RAY ANTHONY LINDSAY



Lieutenant Colonel Ray A. Lindsay is an Air Force aircraft maintenance officer. Prior to attending Air War College, he served as the Deputy Director, 878th Aeronautical Systems Group (F-22 Sustainment and Logistics), 478th Aeronautical Systems Wing, Aeronautical Systems Center, Air Force Materiel Command, Wright Patterson Air Force Base, OH.

Lieutenant Colonel Lindsay was born in Fort Valley, Georgia on 15 February 1966. He graduated from Northside High School, Warner Robins, Georgia with honors in 1983 and attended Angelo State University on academic, ROTC and National AFROTC scholarships. He received a Bachelor of Science degree in Mathematics and was commissioned as a Distinguished Graduate with a regular Air Force appointment in 1987. He completed his Master of Science Degree in Educational Leadership with Troy State University, Pacific Region in August of 1994 with a 4.0 grade point average and received a Master of Military Operational Art and Science from Air University, Air Command and Staff College in June 2002.

Lieutenant Colonel Lindsay entered active duty and received his regular commission in June of 1988. In addition to his current duties, his experiences included Executive to the Air Force Materiel Command Vice Commander, commander of 48th Component Maintenance Squadron, 48th Maintenance Operations Squadron / 48th Logistics Support Squadron, branch and section chief on the Headquarters United States Air Forces in Europe Directorate of Logistics, Aircraft Maintenance Division Staff, Aide de Camp to the Headquarters Third Air Force Commander, and maintenance supervisor, flight commander, and officer in charge of multiple maintenance and supply organizations in the United States Air Forces in Europe, the Pacific Air Forces, and the former Tactical Air Command. His operational weapon systems experience includes the F-16C, RF-4C, F-15 C/E, and KC-135.

Lieutenant Colonel Lindsay is married to the former Delarita L. Jackson. They have three daughters, Heather (age 22), and twins Hillary and Halle (age 15).

Introduction

One's first step in wisdom is to question everything - and one's last is to come to terms with everything.

-- Georg C. Lichtenberg

After personally experiencing four organizational structures impacting flightline maintenance and only five years following a major Air Force reorganization, many Air Force personnel found themselves contemplating another potential realignment in 2008. Again, this realignment placed the reorganization of flightline aircraft maintenance, otherwise known as the aircraft maintenance unit (AMU), as a central consideration. Similar to previous considerations, this issue raised an emotional and controversial debate throughout the Air Force. Many sought wisdom and comfort from senior officers. In a number of instances, the only wisdom or comfort offered in public forums was the understanding the Chief of Staff of the Air Force (CSAF) held the responsibility for training, equipping and organizing the Air Force to best serve the interest of the United States (US).

Naturally the “salute smartly” advice offered did not set well in the minds of many officers and senior noncommissioned officers. Many wanted to know the reasons behind the unexpected change in direction. Why had the previous Air Force chief moved to realign the tactical organization to the Combat Wing Organization only to see it being changed back to a structure that resembled the Objective Wing Organization of 1992 – 2002? What happened to the need to align the organization due to frustrating experiences realized during the Air War over Serbia in 1999 back to the system established by Gen Creech? What happened to the need to balance fleet health with operational requirements and the need to have experts with Ph.D.s in both maintenance and operations? Finally, the question that resonated in the minds of many

leaders is the question of what failed in the last five years for the Air Force chief to drive realignment.

To address the rationale behind the former CSAF's, General T. Michael Moseley, decision to realign the AMU in the Combat Air Force (CAF) flying squadron, this paper will provide an historical summary of flightline maintenance up to the late '70s. Following, the contributions of arguably the two most influential leaders on the placement of the AMU will be analyzed. Both General William Creech and General Tony McPeak laid the foundation for flightline organizations that divides the Air Force into two schools of thought for the proper flightline maintenance structure. The examination of these great Air Force leaders will be followed by an overview of issues leading to the 1999 – 2002 Chief's Logistics Review and decisions leading up to the 2006 – 2007 analysis completed by the Air Force Inspection Agency (AFIA) on behalf of General Moseley. After analyzing General Moseley's views on the proper alignment of flightline maintenance, the diminished leadership challenge due to the size and scope of responsibility of the Operations Group and fighter squadron as expressed by Gen McPeak will prove to be the main factor behind General Moseley's decision to realign flightline maintenance under the tactical flying squadron. The resulting analysis will reinforce Gen Creech's and Gen McPeak's views on flightline maintenance and how their perspectives will remain as targets of opportunity for any attempt of Air Force reorganization. Finally, the research will reveal the concept envisioned by Gen Creech best supports the dynamics and challenges of maintaining Air Force weapon systems.

Historical Lineage of Flightline Maintenance (1909 -1978)

Logisticians are a sad, embittered race of people, very much in demand in war; who sink resentfully in to obscurity in peace.

--Admiral Isaac Campbell Kidd, USN

In the early years of aviation (1909-1945), flightline maintainers were embedded in flying squadrons. This was a time when US Airmen were trying to establish an independent identity. Aircraft inventories grew exponentially and with the introduction of the B-17 and B-29, aircraft systems became more complex.¹ Aircraft maintenance technicians were initially jacks of-all-trades and were responsible for all maintenance performed on the aircraft. They slowly evolved from generalist to specialist due to the complexity of new weapon systems.² As the Air Force evolved, so did the concepts of maintenance. Under AAF 65-1, the traditional air organization divided aircraft maintenance into four echelons.³ First echelon maintenance closely resembled maintenance performed by today's crew chief and aerospace ground equipment (AGE) technician. It consisted of servicing aircraft and aircraft equipment; preflight and daily inspections; and minor repairs, adjustments, and replacements. All essential tools and equipment had to be air-transportable.⁴ Second echelon maintenance was similar to what is termed today as heavy on-aircraft maintenance. It consisted of more in-depth servicing of aircraft and equipment, performance of the periodic preventive inspections; and such adjustments, repairs, and replacements, to include engine changes, as done by the use of hand tools and mobile equipment authorized by the combat unit's tables of allowance. The majority of second-echelon equipment also had to be air-transportable though some support elements required ground transportation.⁵ Third echelon maintenance was comparable to today's combat logistics support. It included repairs and replacements that required mobile machinery and other equipment of such

¹ Highlighted by correspondence with Dr. Conversino, faculty advisor Air War College.

² Davis, Capt Wesley C. and Walker, Capt Sanford, "A Comparison of Aircraft Maintenance Organization Structures." Thesis no. AFIT/GLM/LSM/92S-16 (Air Force Institute of Technology Air University, Mar 1992)

³ Editors--Scott, Beth F., Rainey, Lt Col James C. and Hunt, Capt Andrew W. *The Logistics of War: A Historical Perspective*. The Air Force Logistics Management Agency, Maxwell AFB, Gunter Annex, Alabama, August 2001, pp 87-88.

⁴ Ibid, 87.

⁵ Ibid, 88.

weight and bulk that it had to be moved by ground transportation. The technicians were highly specialized, with an emphasis in field repairs and salvage, removal and replacement of major units, assemblies, fabrication of minor parts, and minor repairs to aircraft structures and equipment. This echelon specialized in heavy field repairs within a limited time.⁶ The fourth and final echelon mirrored today's depots. It included operations needed to completely restore worn-out or heavily damaged aircraft to a condition of tactical serviceability and also included the periodic major overhaul of engines, unit assemblies, accessories, and auxiliary equipment.⁷

One of the unique characteristics of this concept of maintenance echelons is the first two echelons were "owned" and the actions performed by the using organization, while maintenance in the remaining two echelons were performed by the Air Service Command (ASC).

Additionally, the third echelon of maintenance resembled the theater centralized intermediate repair facilities employed today.⁸ Of special note, the echelon structure caused maintenance personnel similar frustrations and perceptions as those realized today. There were instances where one squadron of maintenance personnel worked around the clock to prepare their aircraft for next day's mission while the maintenance personnel of a sister squadron in the same bomb group played basketball. Additionally, the flightline maintainer often complained that the ASC sub-depots were unresponsive to the urgency of day-to-day mission requirements. To remedy the perception regarding ASC maintainers, General Arnold directed control of third echelon maintenance under Bomber Command, marking the first attempt to combine all maintenance at an operational location under a single commander.⁹

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

⁹ Ibid, 88

During the period between the two world wars, the pendulum for the aircraft mechanic swung from an orientation on specialists back to one on generalists. Reductions in the size of the Air Force and its manning made this change necessary. The issue of generalizing or specializing flightline maintenance remains a topic of debate today; as seen during periods following wars, the debate is often re-energized by a reduction in forces.¹⁰ In 1947, the Air Force had to face massive reductions. Similar to trends exhibited in the recent past, the most highly skilled aircraft technicians left the Air Force for more lucrative civilian job opportunities. The resulting strategy developed to address this challenge was the Hobson Plan.¹¹

The Hobson Plan established a wing structure that contained a combat group, a maintenance and supply group, an airdrome group, and a medical group. For flightline maintenance, the combat squadron within the combat group was responsible for first and second echelon maintenance.¹² A key milestone following the Hobson Plan was a 1948 survey that outlined a plan to increase peacetime effectiveness, reduce cost and establish sound organization for mobilization. The outcome led Strategic Air Command (SAC) to establish command guidance, SACR 66-12, in 1949 that would hold the maintenance organization accountable for the full utilization of personnel, equipment and facilities to produce the maximum aircraft availability. Tactical Air Command (TAC) elected to not establish command level guidance, but instead, to delegate authority to wing commanders to establish the policy and structure that best fit their unit. A similar concept of leadership would resurface in the latter years.

¹⁰ Davis, Capt Wesley C. and Walker, Capt Sanford, "A Comparison of Aircraft Maintenance Organization Structures." Thesis no. AFIT/GLM/LSM/92S-16 (Air Force Institute of Technology Air University, Mar 1992)

¹¹ Harris, Capt Barbara L. "Challenges to the United States Air Force Tactical Aircraft Maintenance Personnel." Thesis no. AFIT/GLM/LSM/92S-18, (Air Force Institute of Technology Air University, Sep 91)

¹² Davis, Capt Wesley C. and Walker, Capt Sanford, "A Comparison of Aircraft Maintenance Organization Structures." Thesis no. AFIT/GLM/LSM/92S-16 (Air Force Institute of Technology Air University, Mar 1992)

The new and more complex weapon systems of the 1950s brought with them the need for specialization within flightline maintenance. The 1950s also brought in a new era in aircraft maintenance as a whole. With the publishing of Air Force Manual (AFM) 66-1, Maintenance Management Policy, flightline maintenance was moved from flying squadrons to a squadron aligned under a single authority for all maintenance activities within a wing. With the new alignment came standardization across all major commands, metrics designed to measure a unit's performance, and a system of data collection and reporting.¹³

The U.S. entry into Vietnam caused another shift in the alignment of flightline maintenance. Tactical units chose to disband the organizational alignment directed by AFM 66-1. Instead they chose to organize in accordance with Pacific Air Forces Regulations (PACAFR) 66-12; in this command structure the combined Organizational Maintenance Squadron (OMS), which is the equivalent to the Aircraft Maintenance Squadron of today, was disbanded. All OMS functions, to include munitions loading, were assigned to the tactical squadrons.¹⁴ This concept was not completely new to tactical squadrons. In the mid-sixties, TAC initiated a similar concept with a TAC enhancement program whereby maintenance and support personnel augmented the tactical squadron to give it an independent operating capability.¹⁵ In the face of another reduction of forces following the Vietnam War, tactical units returned to the structure defined under AFM 66-1.

Following the US withdrawal from Vietnam, the Air Force's attention shifted to maintaining higher states of readiness in Europe. Unfortunately, the reduction of forces and requirement for higher readiness were in opposition. Unhappy with the inability of the flightline

¹³ Editors--Scott, Beth F., Rainey, Lt Col James C. and Hunt, Capt Andrew W. *The Logistics of War: A Historical Perspective*. The Air Force Logistics Management Agency, Maxwell AFB, Gunter Annex, Alabama, August 2001, p. 131.

¹⁴ Ibid, 136.

¹⁵ Ibid.

maintenance units to generate the desired sortie rates, the US looked to recent Israeli Air Force (IAF) successes in the 1973 Arab-Israeli War to find answers. In essence, the US team examining the IAF's structure for flightline maintenance found the efficiencies were gained from the alignment of personnel directly responsible for sortie generation to the flightline and all others to the squadrons not in direct support of day-to-day sortie generation. Inspired by the Israeli concept of maintenance, the Air Force established the Production Oriented Maintenance Organization (POMO). The primary objectives of this new structure were to increase the effectiveness of maintenance, support for the operational mission, and unit readiness.¹⁶ Under the POMO concept, flightline maintenance personnel were organized into aircraft maintenance units and were cross-trained to perform a variety of general aircraft maintenance tasks.¹⁷

General William L. Creech: The Reformist

Workers take more responsibility when they have a sense of ownership

-- General W.L. "Bill" Creech

General W. L. "Bill" Creech took over command of TAC in 1978; he is described as the antithesis of the blustery, cigar-chomping, tantrum-throwing generals who had long been the favored role models in the combat-pilot ranks.¹⁸ Gen Creech inherited one of the world's most formidable combat units; TAC had 3,800 aircraft, 115,000 full-time civilian employees, and 65,000 military personnel scattered around the world at 150 military installations. However, as great as a military machine he had in numbers, over half of his aircraft were not mission capable and an average of 220 aircraft were out for longer than 30 days (hangar queen). Finally, training

¹⁶ Ibid, 153

¹⁷ Davis, Capt Wesley C. and Walker, Capt Sanford, "A Comparison of Aircraft Maintenance Organization Structures." Thesis no. AFIT/GLM/LSM/92S-16 (Air Force Institute of Technology Air University, Mar 1992)

¹⁸ Kitfield, James. *Prodigal Soldiers*. Potomac Books, Inc, Washington, DC, 1995, p. 174.

sorties were dropping at a rate of 8 percent per year; frustrated pilots were leaving the service at an alarming rate.¹⁹

Although flightline maintenance had experienced a major organizational shift under POMO, the structure was not sufficient to produce the required sortie rates. To accurately capture the atmosphere within the command at the time, one 1FW crew chief expressed his view of aircraft maintenance as follows, "We were all aware that a human being was strapping into that jet, but there was a lot of sloppy work done to get it into the air, and if it missed its sortie, it was no big deal."²⁰ A Nellis AFB pilot described the atmosphere as follows, "Used to be you could take an airplane off, but your radar wasn't working or the inertial navigation system didn't work. So even when we did fly, the sorties were often low quality."²¹ With an understanding that a picture is worth a thousand words, the state of affairs is easily highlighted by the following, "It all added up to a lackluster fighter force, beset with apathy, sagging morale, and horrifying statistics. Only 20% of 'broken' planes were getting repaired in a typical eight-hour shift. Pilots who needed a minimum of 15 hours of flying time a month were getting 10 or less. The average plane, which had flown 23 sorties a month in 1969, was flying only 11 by 1978. Finally, for every 100,000 hours flown, seven planes crashed. Investigators blamed many of these crashes on faulty maintenance."²²

To further improve processes established under POMO, Gen Creech elected to break up the 2,000 person wing maintenance operations into much smaller squadron repair teams.²³ The streamlined organizational maintenance effort focused on a squadron of 24 planes, rather than a much larger 72 aircraft wing-approach to flightline maintenance. Starting on a trial basis at a

¹⁹ Finnegan, Jay. *Four Star Management*. Goldhirsh Group, Inc, Jan 1987, p.42.

²⁰ Ibid.

²¹ Ibid.

²² Ibid.

²³ Kitfield, James. *Prodigal Soldiers*. Potomac Books, Inc, Washington, DC, 1995, p. 179.

few installations, Gen Creech created squadron repair teams, drawing technicians from each of the maintenance disciplines. The team would work only on their own squadron's aircraft. Additionally, instead of operating out of rear-area dispatch locations, Creech's plan moved them right down to the flightline.²⁴

TAC established the Combat Oriented Maintenance Organization (COMO). Under COMO, General Creech focused heavily on the flightline maintenance organization and its teaming with their assigned flying squadron. In addition to establishing a common awareness of purpose and mission through unit patches and organizational ball caps, COMO dedicated to each flying squadron /AMU its own AGE team, crew chiefs to each aircraft assigned, schedulers, analyst, debrief and supply support.²⁵ Although AMUs and their affiliated flying squadron had two separate command channels, they trained, exercised and deployed as a single entity. Pilots quickly noticed the changes in their crew chief's attitudes. The crew chiefs were spending time on their days off cleaning and enhancing the appearance of the aircraft which now sported their names.²⁶ When pilots returned from sorties, the crew chiefs were standing at attention, saluting proudly.

The crew chief's behavior were not directed or mandated by their leadership; instead, it was the pride they held for their aircraft and a pride they wanted their pilots to share when they flew their aircraft.²⁷ The natural progression of the relationship was the development of a strong camaraderie between the crew chiefs and their pilots. Squadrons built strong identities and

²⁴ Finnegan, Jay. *Four Star Management*. Goldhirsh Group, Inc, Jan 1987, p.42

²⁵ Davis, Capt Wesley C. and Walker, Capt Sanford, "A Comparison of Aircraft Maintenance Organization Structures." Thesis no. AFIT/GLM/LSM/92S-16 (Air Force Institute of Technology Air University, Mar 1992).

²⁶ Slife, Lt Col James C. *Creech Blue: Gen Bill Creech and the Reformation of the Tactical Air Forces, 1978-1984*. Air University Press, Maxwell Air Force Base, Alabama, October 2004.

²⁷ Finnegan, Jay. *Four Star Management*. Goldhirsh Group, Inc, Jan 1987, p.42

tradition by painting squadron colors on the tails of their aircraft.²⁸ Finally, a healthy competition evolved between squadrons as they worked diligently to beat other squadrons in the wing on both pilot performance and quality of maintenance.²⁹

COMO was institutionalized by Multiple Command and TAC Regulations 66-5. Gen Creech's leadership and the effectiveness of his reform were soon reflected in the statistics. In one year alone, the sortie rate rose 11 percent. By 1980, the average fighter aircraft use rose from 17 hours a month to 24 hours a month. Within two years of Gen Creech taking command, TAC improved the aircraft mission capable rate by ten percent; on average, over 60 percent of the aircraft were mission capable.³⁰

It is also very important to consider General Creech's opinions on the need to organize for war. In his description of COMO, he explained that the organizational structure trains wartime leaders. Gen Creech believed strongly in squadron identity. He also emphasized the need for units to organize in peacetime as they would deploy and fight in wartime. As previously mentioned, he supported the synergy of squadron sized units which consisted of an AMU organized and equipped to deploy with and maintain the aircraft assigned to their perspective flying squadron.³¹

When questioned about keeping the AMUs organizationally separate from the flying squadron, he listed three reasons. The first was the need for the flying squadron commander to remain focused on flying in order to remain credible in the mission. The second centered on his philosophy regarding training for war. He wanted maintenance leaders focused on maintaining aircraft and he wanted operations leaders focused on combat flying. Finally, he supported the

²⁸ Ibid.

²⁹ Ibid.

³⁰ Ibid.

³¹ Slife, Lt Col James C. *Creech Blue: Gen Bill Creech and the Reformation of the Tactical Air Forces, 1978-1984*. Air University Press, Maxwell Air Force Base, Alabama, October 2004, p. 88.

need for maintenance officers to have a clear track for career progression; this implied his recognition that great maintainers should be “home-grown” by experts schooled in the art and science of aircraft maintenance.³²

General Creech helped lay the foundation of one of the mightiest military machines seen throughout the history of the Air Force; his impact would not be forgotten for generations that followed nor would his service be appreciated more than those he served with or mentored. Following the successes of air power during Desert Storm, Lt Gen Charles A. “Chuck” Horner, the Joint Forces Air Component Commander commented that General Creech gave the USAF the organization and training that made success possible. General David C. Jones, a close associate of Gen Creech, ranked Gen Creech with General Curtis E. LeMay as one of the two most influential men in his [Jones] long Air Force experience.³³

General Merrill A. McPeak: Renaissance Man

The common habit of referring to technology in terms of its capabilities may, when applied within the context of war, do more harm than good.

-- Martin van Creveld

Following DESERT STORM, arguably the greatest air campaign in the history of the U.S. military, the United States Air Force found itself faced with another major reorganization; the entire Air Force was about to undergo cosmetic surgery. To some, the Air Force would be “leaner and meaner.” However, to others, the Air Force returned to its historical lineage. At the center of this major reconstructive surgery was the wing organization; within the reorganization of the wing was the placement of flightline maintenance. Many were confused about the CSAF’s decision to move flightline maintenance to the flying squadron after the existing organizational structure perfected by Gen Creech proved so effective. Additionally, although

³² Ibid, p. 89.

³³ Ibid, p. 1.

SAC was not organized under COMO, Gen McPeak chose to standardize all flying organizations throughout the Air Force with the AMU in the flying squadron.

To set the stage for the path Gen McPeak followed, it is important to understand the appreciation he had for Gen Creech's accomplishments. This appreciation is best captured in Lt Col James Slife's book, *Creech Blue*. In his book, Slife writes, "In the hours before the start of Operation Desert Storm on 16 January 1991, the Air Force Chief of Staff Gen Merrill A. McPeak, wrote a letter to one of his old bosses. In it, he said, 'We are about to harvest the results of years of hard work and leadership by you and a handful of other great Airmen. We will do well. But we need to recognize that we are beholden to you, because you really built this magnificent Air Force we have today.'"³⁴ The success of the USAF is highlighted by Gen McPeak's comments, "Our in-commission rate for every aircraft in theater hovers around 93 percent. If I didn't know the people involved, I would think they were lying. It sounds too good, really. Our people around the Air Force have been doing great work."³⁵

In the face of another drawdown, Gen McPeak wanted to ensure the Air Force had relevance and its purpose, goal and mission to be the country's dominant air component would remain unchanged.³⁶ His restructuring plan contained three main underlying operating principles. The first was to streamline the organization by eliminating layers of command. Second, McPeak's plan stressed eliminating activities that added little value. Finally, he sought true accountability for performance at every level by combining authority and responsibility where possible.³⁷

³⁴ Ibid, p. 1

³⁵ McPeak, Gen Merrill A. *Selected Works 1990-1994*. Air University Press, Maxwell Air Force Base, Alabama, August 1995, p. 8.

³⁶ Ibid, p. 6.

³⁷ Ibid.

Although, Gen McPeak's restructuring impacted policy, as well as MAJCOM and Air Staff alignment, one of his prime targets was the alignment of the AMU. Gen McPeak considered the squadron to be the basic combat unit, which he described as the team that flies and fights. The team consisted of the aircrews that fly and the crew chiefs that service the aircraft.³⁸ Gen McPeak felt the integrity of the team could be restored by returning responsibility for on-aircraft maintenance to the flying squadron commander. According to Gen McPeak, this move made it clear that the mission of the Air Force was to fly and fight and the flying squadron commander was the leader for that mission.³⁹

It is important to understand two main aspects of Gen McPeak's plan to realign the AMU under the flying squadron commander. First, this concept was similar to that of the traditional Army Air Force structure noted earlier. Air Force heritage influenced many of the reforms Gen McPeak pushed during his time as CSAF. Additionally, the concept mirrored the Composite Strike Air Force concept used by TAC in the '50s and '60s; this concept required a squadron and support to deploy and operate autonomously.⁴⁰ Second, his reasoning rest with the launch, flight and recovery requirements of the combat unit. Gen McPeak anticipated less troubleshooting for flightline maintenance because of the Air Force's investments to improve reliability and maintainability of weapon systems.

As Gen McPeak analyzed options for the wing structure, one of the key issues he wanted to address was the balance of responsibilities between groups. For instance, he highlighted the fact that the maintenance deputy, a.k.a. DCM, under the tri-deputy structure supervised more than twice as many people as any other deputy; he also stressed that this was accomplished with very

³⁸ Ibid, p. 54.

³⁹ Ibid.

⁴⁰ In correspondence with Dr.(Colonel ret) Joseph Boyett, Jr., he highlighted the significance of the Composite Strike Air Force, it's requirement to operate independently and how it may have helped shaped Gen McPeak's concept of the combat unit.

few officers and a low officer-to-enlisted ratio (see fig 1). When compared to the Operations Group (OG), he stated the OG was small and heavily officer oriented; he described this as being not much of a leadership challenge.⁴¹ Gen McPeak emphasized that this imbalance would be partially corrected by moving the AMU back to the flying squadron, which would in turn give the flying squadron commander a much wider scope and offer a much tougher set of responsibilities.⁴² Referring to the expanded responsibilities of the flying squadron commander, Gen McPeak stated:

“A squadron commander, a flightline operational squadron commander, no longer has 65 college-graduate volunteers under his command. He has got 300 guys, most of whom are not college graduates, trying to do something ugly out there with airplanes. The lieutenant colonel now has a completely different problem, and he is better prepared to handle the kind of intellectual challenge that high command involves. So we make people flexible, by which I mean break the mold on static thinking.”⁴³

Gen McPeak also reemphasized the need to “restore” the sense of teamwork between aircrews and their crew chiefs.⁴⁴ The question that stands out is whether or not the teamwork could be restored without the alignment of the AMU in the flying squadron. He pointed out the teamwork would prove crucial to the success of deployed operations. He also emphasized that war plans often call for mobilizing single squadrons. Unfortunately, the flying squadron commander was faced with serious on-the-job training in field conditions. To prevent this, the right structure is one that aligns peacetime with wartime organizational configurations.⁴⁵

To further strengthen his position, Gen McPeak pointed out that the air forces of a number of nations as well as the U.S. Navy operate with flightline maintenance aligned within

⁴¹ McPeak, Gen Merrill A. *Selected Works 1990-1994*. Air University Press, Maxwell Air Force Base, Alabama, August 1995, p. 105.

⁴² Ibid.

⁴³ Bussiere, Maj Thomas A. “General Merrill McPeak Leadership and Organizational Change.” Thesis, Maxwell AFB, AL, SAAS, Jun 2001, p. 46.

⁴⁴ Ibid, p. 124.

⁴⁵ Ibid p. 109.

the flying squadron. Finally, he reinforced his stance by recalling the traditional flying squadron that was established in the early years of US aviation, “We ourselves used to be organized this way. Why did we get away from it? Frankly, because maintaining aircraft is a tough complicated business. And we organized to solve the logistics problems.”⁴⁶ With investments in improving reliability and maintainability, Gen McPeak felt it was time to put emphasis where it rightly belong; he stressed the Air Force existed to operate and employ equipment, not to fix it.⁴⁷ One can only speculate he meant for intermediate level maintenance responsibilities to transfer completely to the depot, leaving the operational flying wing leaner and more expeditionary in its organizational construct.

Chief of Staff’s Logistics Review (CLR): PHD’s in Operations and Maintenance

Those who build great companies understand that the ultimate throttle on growth for any great company is not markets, or technology, or competition, or products. It is one thing above all others: the ability to get and keep enough of the right people.

-- Jim Collins

When the USAF completed its first major air campaign following DESERT STORM, there were no praises of logistics successes as seen in the previous war. Instead, there was widespread criticism of failed processes and failures in leadership. Operation ALLIED FORCE (OAF) highlighted problems that raised major concerns about the tactical air force’s ability to maintain required readiness levels; OAF was arguably the culminating point for many failures of the combat unit under the Objective Wing established by Gen McPeak.

The Commander Air Forces logistics staff (COMAFFOR/A4) raised issues over aircraft arriving for combat with high-time engines, engines overdue time changes and grounding inspections, and aircraft requiring phase inspections immediately upon arriving in the area of responsibility (AOR). To make matters worse, many units arrived to their designated combat

⁴⁶ Ibid, 109

⁴⁷ Ibid, 109

locations without critical tools for repair; this resulted in aircraft spending several days non-mission capable while units awaited tools that were standard pieces of equipment for deployed operations.⁴⁸ Without the intervention of COMAFFOR/A4, the combat effectiveness of some units may have been in jeopardy.

To gain a better understanding of the problems experienced by the deployed forces, several field visits by the COMAFFOR/A4 revealed a myriad of issues. First, several Deputy Operations Group for Maintenance (DOGMs), who were charged with oversight of all maintenance activities within the Operations Group, lost sight of the bigger picture due to being bogged down in day-to-day operations. Second, flying squadron commanders paid little attention to the logistics of supporting their operational requirements. Finally, both officer and enlisted maintenance leadership throughout many areas of operations neglected or were never schooled on the requirements for sustaining fleet health in high operational tempo environments.⁴⁹ In essence, they failed to monitor and manage the accelerated phase flow and time change requirements needed to sustain their combat operations.

In order to remedy the problems seen with “the combat unit,” the United States Air Forces in Europe (USAFE) team led by COMUSAFE, General John P. Jumper, approached then-CSAF, General Michael E. Ryan, about the need to address issues seen during OAF. USAFE’s briefing to the Chief highlighted the following 5 areas:⁵⁰

1. Light, lean, and lethal EAF requirements
2. Operating in environments highlighted by constrained resources
3. Decreasing MC rates and an aging fleet
4. OAF experiences / lessons learned
5. Deployable squadron concept does not suit EAF requirements

⁴⁸ Lindsay, Maj Ray A. and Matyi, Maj Kyle H. “CSAF Logistics Review: Focused Improvement for EAF Readiness.” Research paper no. AU/ACSC/071-077/2002-04 (Maxwell AFB, AL: Air Command and Staff College, April 2002), 5.

⁴⁹ Ibid, p. 7.

⁵⁰ Ibid, p. 7.

In terms of the proper placement for flightline maintenance, the Headquarters USAFE team emphasized two critical perspectives to Gen Ryan; they emphasized that the two most important things the USAF does are to fly and fix airplanes. Arguing the case for the Air Force to grow leaders with expertise or “a Ph.D.” in each but not both, they recommended the consolidation of maintenance under a single authority for maintenance within the wing structure.⁵¹ Although Gen Ryan did not approve USAFE’s request, the team’s efforts served as the catalyst of what became known as the CSAF’s Logistics Review or CLR. Following CLR, near-term and long-term testing of several options, the Air Force moved forward with changes that consolidated flightline maintenance in an Aircraft Generation Squadron under a single authority for aircraft maintenance, the Maintenance Group Commander. Interestingly enough, the final changes were institutionalized nearly a year after Gen Jumper became CSAF.⁵²

It is important to capture the potential influence Gen Creech had upon Gen Jumper; that influence was so strong that Gen Jumper, as CSAF, took the opportunity to provide the foreword to Lt Col James C. Slife’s book on Gen Creech, *Creech Blue*. In the foreword, Gen Jumper praised Gen Creech as a leader, a visionary, a warrior and a mentor.⁵³ Gen Jumper also credited Gen Creech with essentially transforming the Air Force. By working closely with Gen Creech over a number of years, Gen Jumper recalled his influence over not only tactics, training, and leader development, but also organization. Without a doubt, Gen Jumper’s back-to-basics philosophy mirrored that of his mentor in both practice and his determination for the proper alignment for flightline maintenance. Like his mentor, Gen Jumper felt the complexity of

⁵¹ Ibid.

⁵² Gen Jumper became the Air Force Chief of Staff in Sep 2001. Maintenance was consolidated under Maintenance Groups in throughout the Air Force in 2002.

⁵³ Slife, Lt Col James C. *Creech Blue: Gen Bill Creech and the Reformation of the Tactical Air Forces, 1978-1984*. Air University Press, Maxwell Air Force Base, Alabama, October 2004, p. v

operational requirements and the challenges of effectively managing a fleet of aircraft in the wing structure were best accomplished by a career maintenance O-6.

#18's Return to Renaissance

There are going to be times when we can't wait for somebody. Now you're either on the bus or off the bus.

-- Ken Kesey

On 19 July 2007, the eighteenth CSAF, General T. Michael Moseley, sent a correspondence to key Air Force leaders that temporarily stopped time for many in the aircraft maintenance and operations career fields. In the memo, he spoke of inputs to “potential adjustments and enhancements” to the existing wing organization. He surveyed squadron, group, and wing commanders for their input to the wing organizational structure. After informing his audience that he felt the major parts of the wing and group structure were right for both home station and deployed operations, he expressed his opinion as to where crew chiefs should work or where an AMU should be positioned. His beliefs are quoted as follows:⁵⁴

1. The USAF's mission is to deliver decisive effects on a global scale; our task is to properly organize, train & equip the USAF to deliver those effects ... both from expeditionary locations & from home station
2. Relative to mission ... there is no empirical evidence that either organizational template is better relative to fleet health
3. There is also no historic evidence that squadron-level maintainers that served in flying squadrons were disadvantaged in promotions or career options
4. The expeditionary / deployed organizational & home station template should be focused on assigned mission ... vice function
5. The home station organizational template should be the same as deployed ... and we should not look to “change” the structure somewhere in route between home station & the expeditionary location
6. The structure should facilitate the training and experiencing of those officers that will command both expeditionary operations & home station operations – at all levels (squadron, group, wing, NAF & theater)

After identifying these key beliefs, Gen Moseley highlighted the need to find the right organizational template, one that keeps leadership focused on mission vice function. Gen

⁵⁴ Moseley, Gen Michael T. “Wing Structure.” Email Correspondence, Washington DC, Jul 2007.

Moseley believed that many of the views on the proper placement of the AMU were distorted by emotionalism and urban myths surrounding fleet health, sortie generation, promotion rates and home station / deployed organization parallels. Finally, he emphasized the right structure should prepare the next generation of officers to command at higher levels.⁵⁵

Gen Moseley closed the memo by recognizing the need to be cautious by not injecting additional turbulence into the Air Force in the midst of another drawdown of personnel presented by PBD720.⁵⁶ He stressed that his near-term focus was PBD720 execution and Program Objective Memorandum build. However, he believed that the right path for the future alignment of the AMU was under the flying squadron commander.⁵⁷ Prior to Gen Moseley releasing his correspondence to key Air Force leaders, his team had already been examining new Air Force organizational concepts which also included options for the alignment of flightline maintenance. One of the taskings directed by Gen Moseley was Sierra Bravo; it was conducted in conjunction with the Defense Advanced Research Projects Agency (DARPA). The other tasking was conducted by the Air Force Inspection Agency (AFIA). It became known as the Air Force Future Flying Wing Organization (AFFWO).

A memo from the Secretary of the Air Force (SecAF) generated Sierra Bravo. The memo directed the CSAF in March 2006 to examine possibilities for a new Air Force structure; the SecAF directed that options considered should begin with a theoretical mission. He also directed to not use Gen Spaatz's template of the bomb group, but instead, to start from scratch. SecAF

⁵⁵ Ibid.

⁵⁶ PBD 720 is the Air Force's plan to reduce by 40,000 Active Duty, Guard, Reserve and civilian Full-Time Equivalents in order to self-finance the recapitalization and modernization of the Air Force's aircraft, missile and space inventories.

⁵⁷ Moseley, Gen T. Michael. "Wing Structure." Email Correspondence, Washington DC, Jul 2007.

reemphasized the focus was mission first and then determining the right size to meet that mission.⁵⁸

In follow-up correspondence, SecAF provided the following guidance:

“I want you to take a target that would reduce airfield operations, to include pilot input by 30% with a stretch to 40%. Therefore a dedicated airbase would be reduced to seventy percent with a stretch to sixty percent staffing without backfills This reduction can be accomplished a number of ways, consolidating maintenance ... eliminating local tower operations ... having the pilots service their own aircraft for minimal needs ... designating the area as the pit stop ... kind of like a Navy carrier ...”⁵⁹

Like Gen McPeak, Gen Moseley found himself faced with the opportunity to find the best Air Force structure in the face of another large reduction in forces. In regards to the right alignment for flightline maintenance, the design principles for Sierra Bravo focused on the following key principles:

- a. Mission precedes ownership and size
- b. Home station organization design must be applicable to Air Expeditionary Force (AEF) expeditionary bases
- c. Centralize installation, maintenance and logistics support in forward operating areas (FOAs)
- d. Streamline readiness and link expeditionary combat support (ECS) to AEF cycle
 1. Standardize a core capability packages by mission type
 2. Train as a unit Deploy as a unit ... Fight as a unit
- e. Realign functions base on enhanced capability vice present day community ID
- f. Sustainable career development path to leadership positions

With the assumption of regionalized installation, maintenance and logistics centers in place and working effectively, Sierra Bravo called for all maintenance and operations combined under a Fighter Group commander with deputies for both maintenance and operations. The specific recommendation for flightline maintenance was to leave it combined in an Aircraft Maintenance Squadron (see fig. 5).

⁵⁸ Hendricks, Col Fran. “Sierra Bravo: New Base Design Concept for the Air Force.” Briefing, Washington DC: HQ USAF, Jan 07

⁵⁹ Ibid.

The next critical input to the CSAF on reorganization was the AFFWO analysis from the AFIA.⁶⁰ In a January 2007 update, the AFIA focused on answering four CSAF areas of interest. They examined the history of wing organizational structures, three aspects of organization of which two impacted the alignment of flightline maintenance, leadership development and the benefits of reorganizing in relation to the turbulence of doing so.⁶¹

In examining the history of the Air Force wing organization, the AFIA was masterful in graphically showing the transformation of operations- or maintenance-led sortie generation (see fig. 6). The AFIA highlighted that the Air Force often elected to centralize maintenance following periods of large drawdowns of personnel or forces. After providing a historical perspective to peacetime and contingency flightline organizations (see fig. 9), the team found that large expeditionary wings were closely aligned to their home station operations and that in a few instances there were slight differences in flying wing organizations which were largely dependent on mission design series (MDS), mission, location, and nature of operation. Senior leaders surveyed indicated home station and expeditionary organization was “about right.”⁶²

The second consideration for the organizational alignment of flightline maintenance focused on sortie generation. The AFIA found that factors such as funding for spares, age of the aircraft, operations tempo and reduction of forces influenced capability; due to these factors, they found no correlation between CWO and the Objective Wing (see fig. 7 & 8) on aircraft availability, mission capable rates, or sortie generation rates (see fig. 10). The team also found that Combat Air Forces (CAF) GOs favored flightline maintenance under the flying squadron

⁶⁰ As for the AFIA examination of the AFFWO, the final outbrief / report to the CSAF has not been approved for public release at the time of the research. The following information is derived from Jan 07 update briefing and piece meal tidbits of data from HQ USAF staff. Additional queries revealed that little changed in regards to recommendation for flightline maintenance in Jan 07 update and Jul 07 final briefing.

⁶¹ Air Force Inspection Agency. “Air Force Future Flying Wing Organization (AFFWO).” Briefing, Washington DC: HQ USAF, Jan 07.

⁶² Ibid, p. 10

commander because of the expanded leadership opportunities and unity of effort. On organization at the wing level and below, the team found that commanders were split on blending maintenance into the Operations Group. Finally, the AFIA found a majority of the Mobility Air Forces (MAF) and Special Operations Forces (SOF) GOs favored the current wing structure because it was better suited for mobility / special operations and because the deployed tempo of MAF and SOF units are much greater than a fighter squadron.

One can easily argue that the missions of the MAF and SOF provide a greater leadership challenge due to continuously managing dispersed forces. This fact supports the argument that if development of future leaders is the key consideration, the MAF and SOF are better suited than their CAF counterparts for the alignment of AMUs in the flying squadron. In addition to the MAF and SOF GOs, the maintenance community as a whole supported the CWO structure. In the end, the AFIA stated there was no conclusive evidence that either the Objective Wing or Combat Wing Organization had a measurable impact (positive or negative) on combat effectiveness.⁶³

The next consideration for the AFIA research team was whether or not the Air Force was organized properly in order to develop future flying wing and expeditionary leadership (Wing / GP CCs). This analysis found that promotions to O-5 for pilots declined while support officer promotions had increased since the implementation of the CWO; however, they attributed this to pilots recalled to active duty to fill vacant operations billets, pilot shortages, and pilots who lacked appropriate professional military education. Although the CSAF distributed guidance highlighting a Masters Degree or PME was not a prerequisite for promotion, many non-rated officers felt the necessity to complete both in order to remain competitive with the rated career fields. The team also found that pilots were not afforded the same proportion of command

⁶³ Ibid, p. 12.

opportunities as their mission support counterparts. As for senior leader concerns, the CAF GOs expressed concern about future wing commanders lacking experience with maintenance and lacking leadership experience of enlisted personnel. The team's final analysis was that there was no conclusive evidence the organization had a measurable impact on developing flying wing and / or expeditionary leadership (see fig. 13).⁶⁴

The final AFIA analysis was related to the benefits of reorganization over the turbulence of doing so. The team found no evidence that combat capability or leadership development would be either hindered or improved through reorganization; they felt opportunity cost, effort and time might be better spent on other AFSO21 events / initiatives which would provide a higher return on time invested.⁶⁵ As for senior leaders, the majority was comfortable with the existing organization, but they did state that they would support change if deemed necessary. If change was necessary, the majority of these leaders favored either flightline maintenance under the Operations Group or a Fighter or Bomber Group that contained all operations and maintenance functions (see fig. 5). The team concluded that the benefits of suggested changes would not outweigh in the near term the turbulence caused by the changes (see fig. 13).⁶⁶

Unfortunately, there was no evidence that the AFIA attempted to address the issues CLR identified and tried to address in 1998. There was not discussion of the flying squadron

⁶⁴ Ibid.

⁶⁵ In 2/21/2006 article Air Force Materiel Command defined AFSO21 as follows: In December, a decision was made to rename the Air Force's continuous process improvement initiatives Air Force Smart Operations for the 21st Century, or AFSO 21. AFSO21 is the name assigned to the business-improving initiatives mandated by Secretary of the Air Force Michael Wynne and U.S. Air Force Chief of Staff Gen. T. Michael Moseley. In his Feb. 10 Commander's Log, AFMC commander Gen. Bruce Carlson wrote, "Under AFSO21 we're constantly examining all of our processes in an effort to eliminate waste and unnecessary work. By doing so, we will remain fresh and focused on what's important to mission accomplishment ... while continuously improving all we do. "It's (AFSO21) a mindset, a change in our behavior, a way of operating ... and of thinking," he wrote. At the core of AFSO21 are continuous process improvement initiatives such as Lean, Six Sigma and others – which have been a part of the air logistics centers' cultures for a number of years.

⁶⁶ Air Force Inspection Agency. "Air Force Future Flying Wing Organization (AFFWO)." Briefing, Washington DC: HQ USAF, Jan 07, p. 19.

commander's attention being divided between combat sorties and logistics. The AFIA also chose not to or failed to address why, in times of drawdowns or declining levels of readiness or mission capable rates, the Air Force often elected to centralize wing-level maintenance under the leadership of seasoned maintenance officers. Gen Moseley's reorganization would have been the first to deviate from this tendency.

Following the July 2007 report from the AFIA, General Moseley distributed a memorandum in December 2007 announcing his intentions to reorganize wing maintenance and logistics (see figs. 14 & 15). Regarding flightline maintenance, his decision and reasoning mirrored that of Gen McPeak. He stated that the Air Force's main priority was to properly organize, train and equip our Airmen so they could deliver decisive effects globally. Since the squadron was the building block of the Air Force organizational structure, he felt it should be organized for mission success. He emphasized the need to facilitate the training and expand the experience of officers who would command expeditionary operations.

The most effective formula for such professional development was to structure Air Force units by mission and not by function. He restated his belief that aligning maintenance units responsible for sortie generation with the flying squadron they supported was best for the Air Force. He also stressed that as a vital element of the flying squadron's mission success, the maintainers that directly supported sortie generation belonged in the chain of command of the squadron they supported. Finally, he articulated that the alignment of flightline maintenance under the fighter squadron provided a scalable capability that can easily be presented to the combatant commander. Of interest, he directed the realignment only for fighter and CSAR

flying squadrons and stated further examination of options for bomber, airlift, SOF and ISR platforms was required.⁶⁷

Critical Analysis and Conclusion

If it is not advantageous, do not move

-- Sun Tzu

Days before the kick-off of another Air Force reorganization, the U.S. military's primary air arm would see a changing of the guard in its two highest positions. With a new SecAF and CSAF, one of the first orders of business was to halt the reorganization. Whether General Norton Schwartz fully supported Gen Moseley's decision on reorganization is uncertain. One can only speculate his operational background places in the category of the MAF, SOF GOs that favored the current CWO. Considering the turbulence caused by turnover of AF leadership, the questions surrounding nuclear surety, and the state of the Air Force in the midst of personnel cuts under PBD720, Gen Schwartz may have viewed the proposed changes as ill-timed. During a question and answer session with the men and women of the 325th Tactical Training Wing at Tyndall AFB in Florida, Gen Scharwtz commented that a collective decision had been made to not integrate aircraft maintenance with the operational flying squadrons. He stated that not doing so would help ensure that in years to come more sophisticated cadres of aircraft maintenance personnel will be more tightly focused on maintaining critical weapons systems. He followed this by stating that the partnership between maintenance and operations is integral to success. He stressed the need for a deep bond and camaraderie between crew chiefs and the aviators they supported. He closed the query with a strong statement summarizing his views on maintenance: "Maintenance is not a part-time business and full-time attention is needed for the long haul to

⁶⁷ Ibid.

sustain our rigorous standards.”⁶⁸ Gen Schwartz’s closing statement reflects the principles and views of Gen Creech.

Flightline maintainers will forever find themselves in a tug-of-war between the two camps characterized by the views of Gen Creech and Gen McPeak. The McPeak structure had many characteristics of the organization implemented by Gen Spaatz; it also placed a heavy emphasis on the prestige of the fighter pilot-led organization – “the quarterback that leads his team to victory.”⁶⁹ There are a number of benefits to the Objective Wing structure. It does help develop rated leaders who are better prepared to handle budget, training, resource and enlisted personnel issues as well as lead flying operations. Another key benefit of the AMU within the flying squadron is the fact that enlisted personnel are often awed and inspired by the mystic of the fighter pilot; this is the natural order of Air Force business. Documented Air Force history typically glorifies the pilot as the great leader; little emphasis is given to leadership at other levels of responsibility. In Gen McPeak’s analogy of the quarterback leading the team to victory, the appreciation for the offensive line, running backs, receivers and defense is often overlooked. A commander cannot achieve success without the dedication and commitment of his / her team.

The need to develop future wing commanders is a legitimate concern, especially when one considers that pilots are arguably the least experienced of all Air Force specialties in leading large organizations prior to assuming Wing Command. In spite of this lack of experience, they are often tasked to lead major Air Force programs outside of their operational purview. Lt Col Walter Burns probably captured this point best when he wrote,

⁶⁸ McMahan, A1C, Veronica. “CSAF: Precision, Reliability Key to Airmen Keeping the Promise.” Air Force Print News, Tyndall Air Force Base, FL, Sep, 2008.

⁶⁹ McPeak, Gen Merrill A. *Selected Works 1990-1994*. Air University Press, Maxwell Air Force Base, Alabama, August 1995.

“Very few flying squadron commanders had any experience with maintenance personnel other than their crew chiefs, and now they were responsible for them. The Air Force seems to have done a poor job of preparing pilots for operational squadron command. One flying squadron commander operating under the objective wing structure stated that he was certainly not trained for the job beforehand even though he’d attended the obligatory squadron commander’s course.”⁷⁰

Although the objective wing has strong benefits for the growth and development of rated officers, it did present challenges for the maintenance leadership assigned to the OG. Senior maintainers have commented the Objective Wing structure stifles the growth and grooming of maintenance officers and senior noncommissioned officers; core elements of growing seasoned maintainers are lost because of failures in accountability, mentoring, and oversight of all aspects of effectively leading and managing an AMU. Additionally, the DOGM was put in place to provide the needed balance between officer development, sortie generation, and fleet health; yet they found themselves often in conflict with the flying squadron commanders. In several instances, the conflict resulted in the DOGM seeking new opportunities outside of the Operations Group in order to preserve his / her career.⁷¹

The perfect scenario for maintenance under the flying squadron is a true “remove and replace” environment for line replaceable units; one in which troubleshooting is the push of a button to isolate the faulty part and where reliable parts are readily available. Even with today’s most recent acquisition, the F-22 Raptor, the prime contractor is allowed approximately eight years after fielding its first operational Raptor to mature the weapon system to the levels of performance it was sold to the Air Force. In the meantime, each sortie and new unknown maintenance challenge is on the backs of certain Air Force specialists supporting the platform. If

⁷⁰ Burns, Lt Col Walter L., “The Objective Wing: A Critical Analysis.” Report no. M-U 43117 B9673a (Maxwell AFB, AL: Air War College, April 1995), 21.

⁷¹ Blanks, Major Clifton D. “Deputy Operations Group Commander for Maintenance – DOGM “Band aid or Solution?” Research report no. AU/ACSC/028/2000-04 (Maxwell AFB, AL: Air command and Staff College, April 2000)

the reorganization had gone as Gen Moseley had planned, the F-22 would have definitely been an exceptional leadership challenge for the flying squadron commanders.

Unless the Air Force changes requirements placed on defense contractors or Air Logistics Centers and hold them accountable, reliability and maintainability will always be an issue for weapon systems from the initial acquisition to their inception into the bone yard. As long as the military is affected by budget constraints, fleet management challenges of aging aircraft will always impact readiness. Until the Air Force further improves the quality of life for the flightline maintainers and ensure reduction in forces does not short-change true personnel requirements, the challenges of balancing training and operational requirements will remain at the forefront of leadership challenges.

The organization that best resolves all of the issues previously mentioned for both peacetime and contingency operations is that built by Gen Creech. Gen Creech had it right by stating the flying squadron and AMUs are a single entity married by a commonality of mission and camaraderie. That marriage, regardless of command channels, is always the combat unit. The combat unit is strengthened by a squadron of aircraft that proudly displays both the pilots' and the crew chiefs' names as well as their squadron's colors on the tails.

The area of greatest controversy between operations and maintenance is the need to balance fleet health with operational requirements. Gen McPeak emphasized the need to restore the trust between the AMU and the flying squadron. A thorough analysis is required to truly understand whether or not the trust is really degraded between the maintainers and aircrews.

Unfortunately, mistrust is often a result of either operations or maintenance failing to understand one another's requirements. Together, operations and maintenance must unite in highlighting shortfalls that prevent them from being a successful team. Mistrust is not a natural

order for any flying squadron / AMU team and it should not be expected or tolerated. If a critical shortfall is determined to be mistrust among existing leadership, then replacement of the leadership is essential in order to ensure success of the mission.

The new CSAF's decision to stay within the confines of the CWO brought a great sigh of relief throughout the maintenance and much of the operations communities. However, one cannot help but wonder whether or not the Air Force will find itself facing another restructuring in years to come. Will the alignment of flightline maintenance remain at the center of any proposed restructuring resulting from a further reduction of forces? Will the need to grow future Air Force leaders override the need to ensure balance is retained between operational and fleet health requirements? Will the concept perfected by Gen Creech remain at the forefront of the most efficient structure for ensuring combat capability to our nation's Air Force or will it be overshadowed by the need to better grow future leaders as expressed by Gen McPeak? Finally if a decision is made to realign the AMU to the flying squadron, how does the Air Force ensure the issues surrounding OAF are not repeated?

There will always remain varying views to the previously stated questions. However, the Air Force owes it to its people to select one flightline organizational structure, perfect it, and put it in place to stand the test of time, ideologies, personalities, and changing of Air Force leadership. The organizational structure that best supports the right alignment for flightline maintenance should be one where trained, educated, and experienced experts are available when things do not go as planned.⁷² That organization is the one envisioned, standardized, and perfected by Gen Creech.

⁷² In correspondence with Dr. (Colonel ret) Joseph Boyett, Jr., he stated, "In my opinion that's a significant factor affecting organizational schemes, i.e., organizing so that trained, educated, and experienced experts are available when things don't go as planned."

Appendix A: Illustrations

SELECTED WORKS, 1990-1994

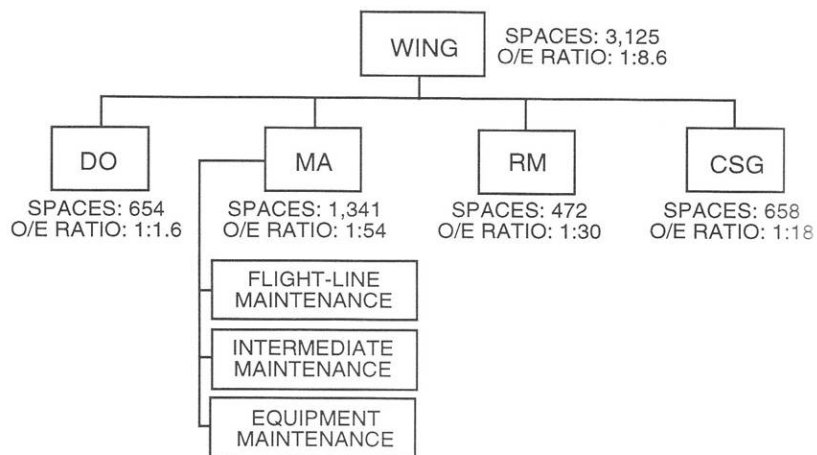


Figure 75. Imbalanced Wing

Figure 1. Imbalanced Wing Structure from *Selected Works 1990-1994*

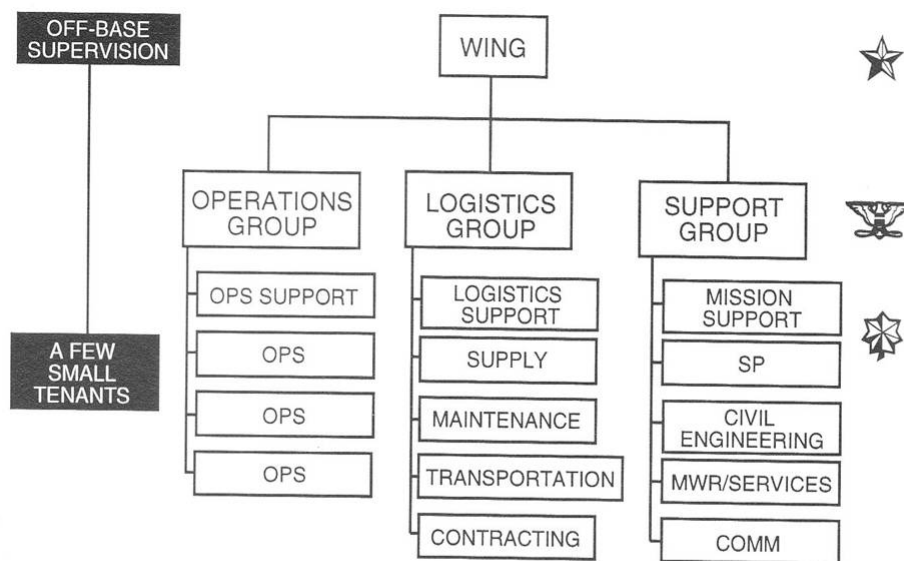


Figure 76. Objective Wing

Figure 2. Objective Wing Structure from *Selected Works 1990-1994*

SELECTED WORKS, 1990-1994

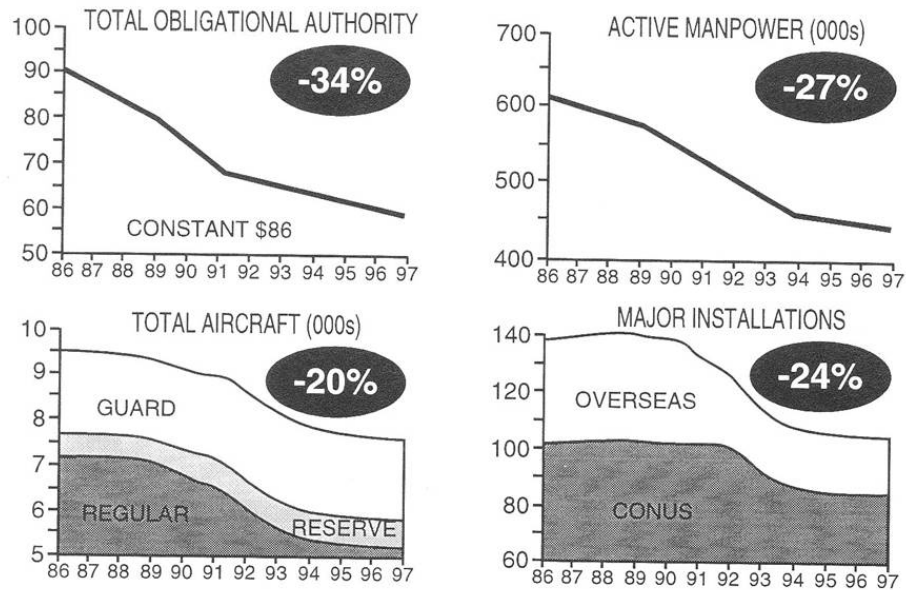


Figure 29. Air Force Resource Base

Figure 3. Air Force force reduction projections from *Selected Works 1990-1994*.

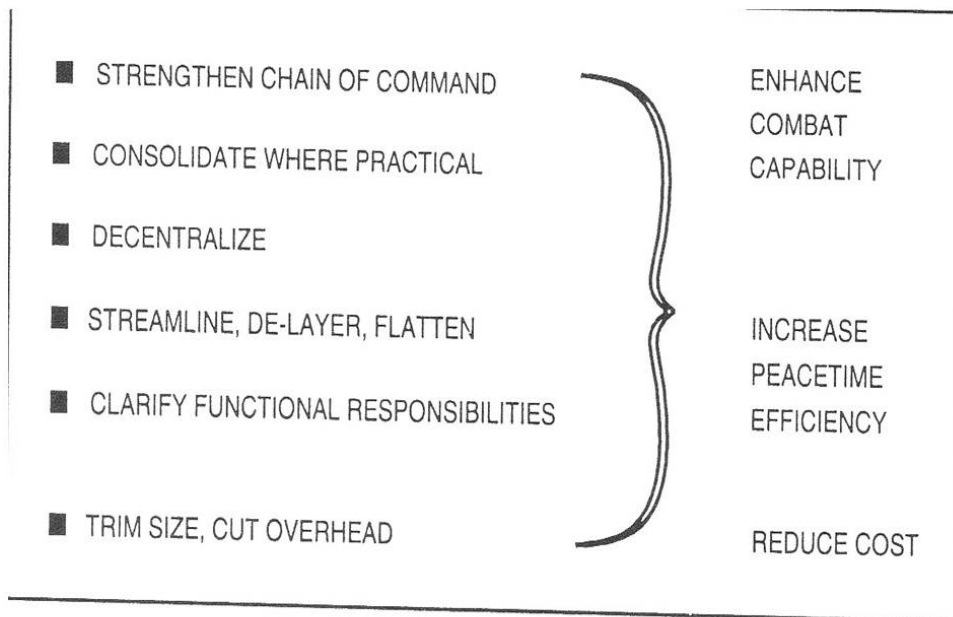


Figure 30. Restructuring Themes

Figure 4. Gen McPeak's restructuring themes from *Selected Works 1990-1994*.

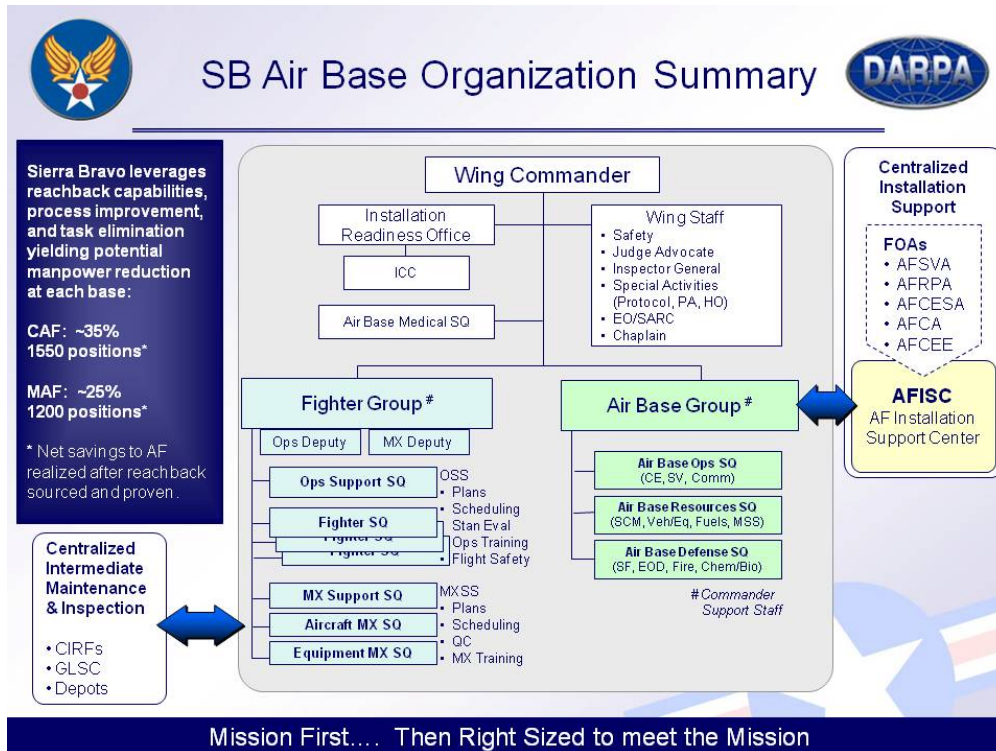


Figure 5. Sierra Bravo proposed basing structure .

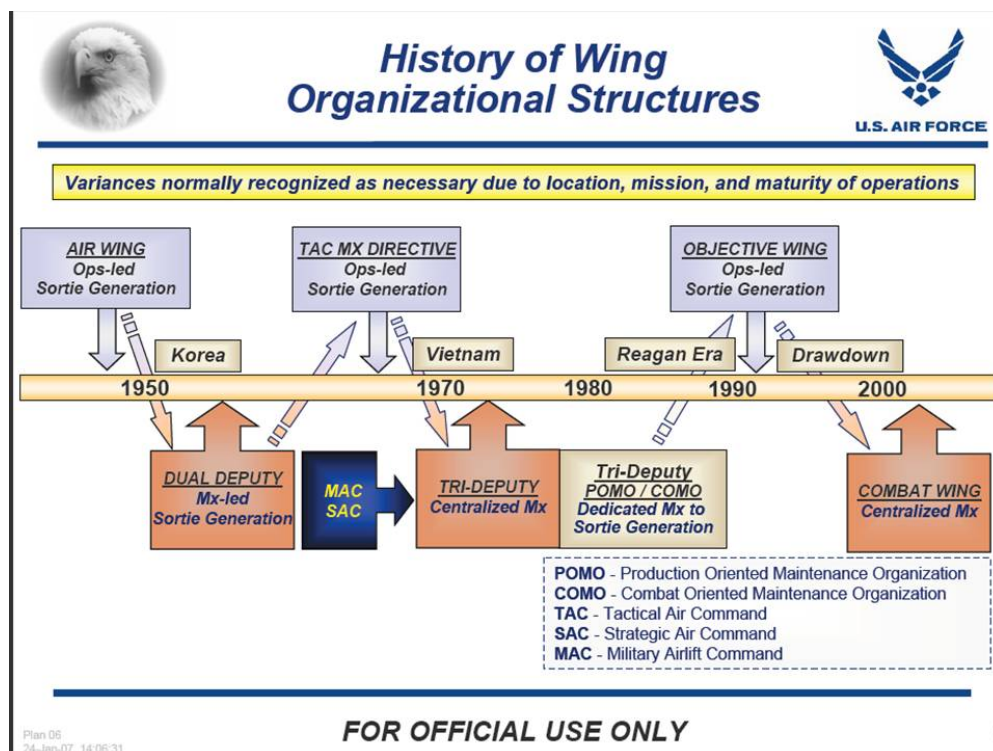


Figure 6. AFIA chart on history of wing organizational structures, Jan 07 brief.

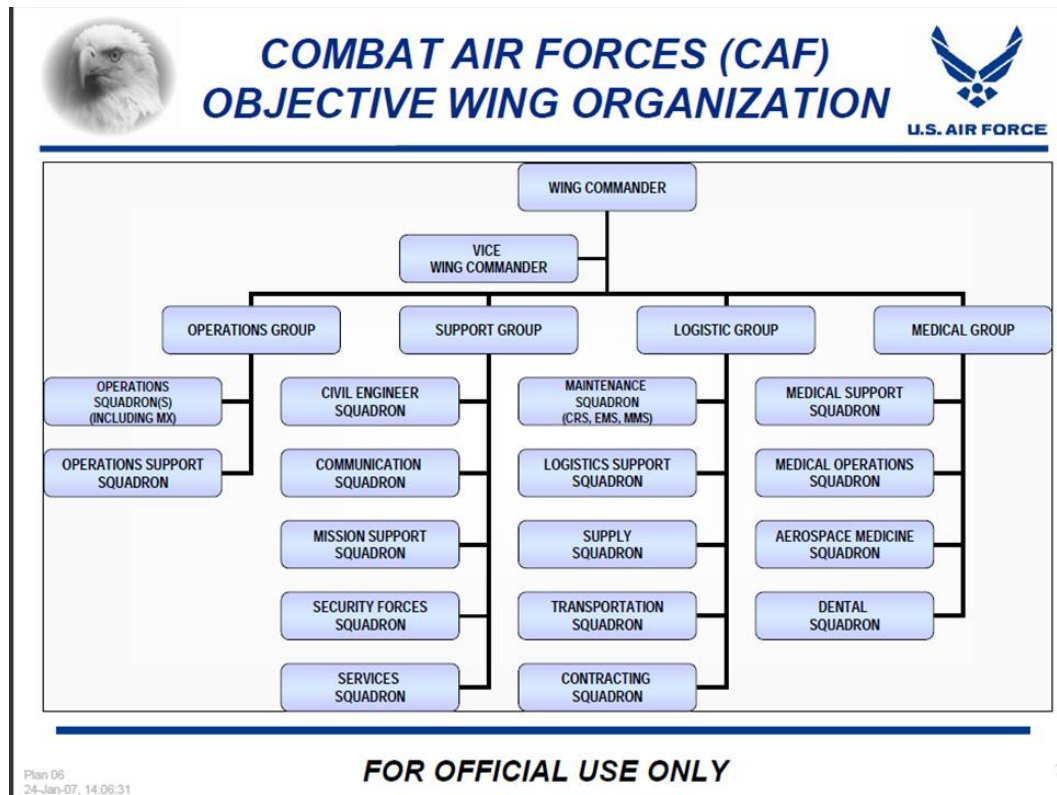


Figure 7. Combat Air Forces Objective Wing organizational chart

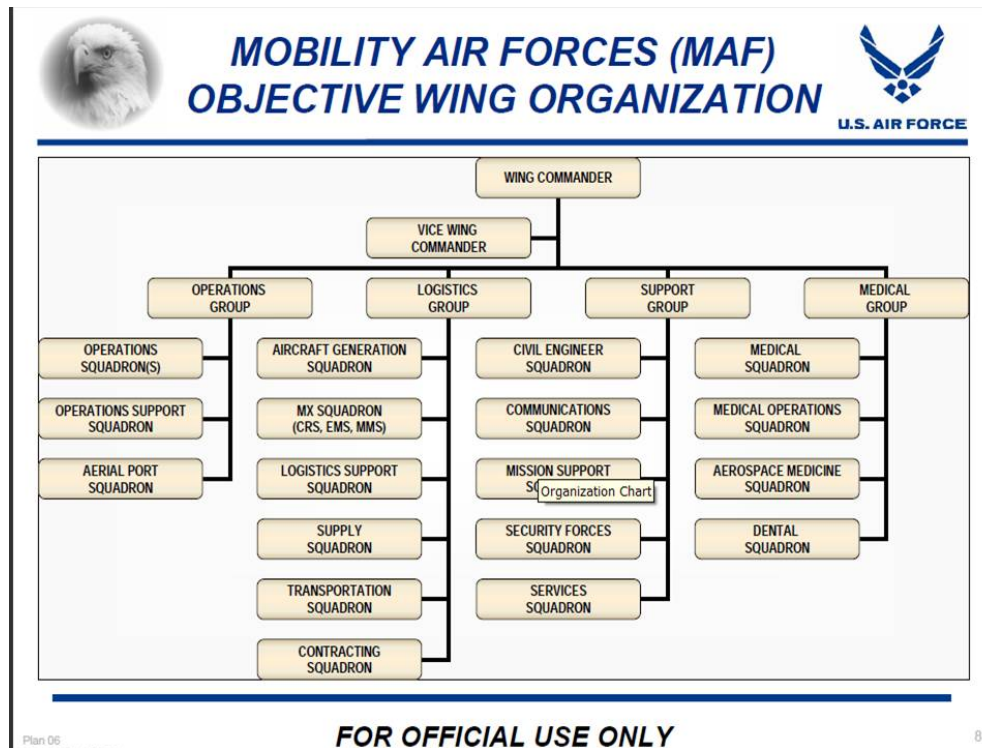


Figure 8. Mobility Air Forces Objective Wing organizational chart

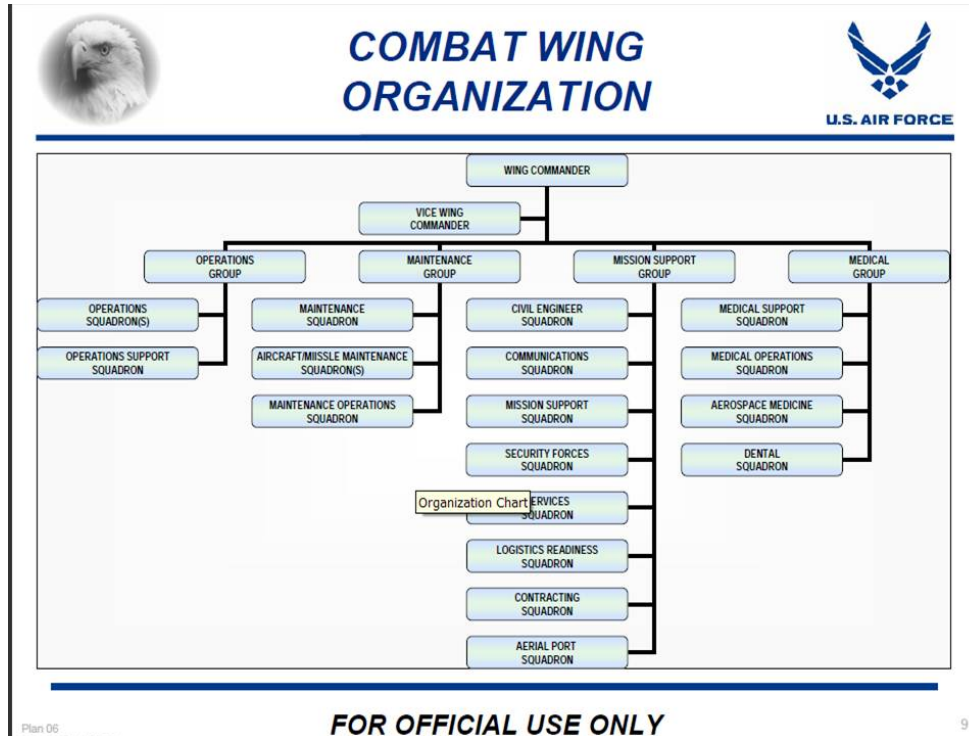


Figure 9. Combat Wing Organization.

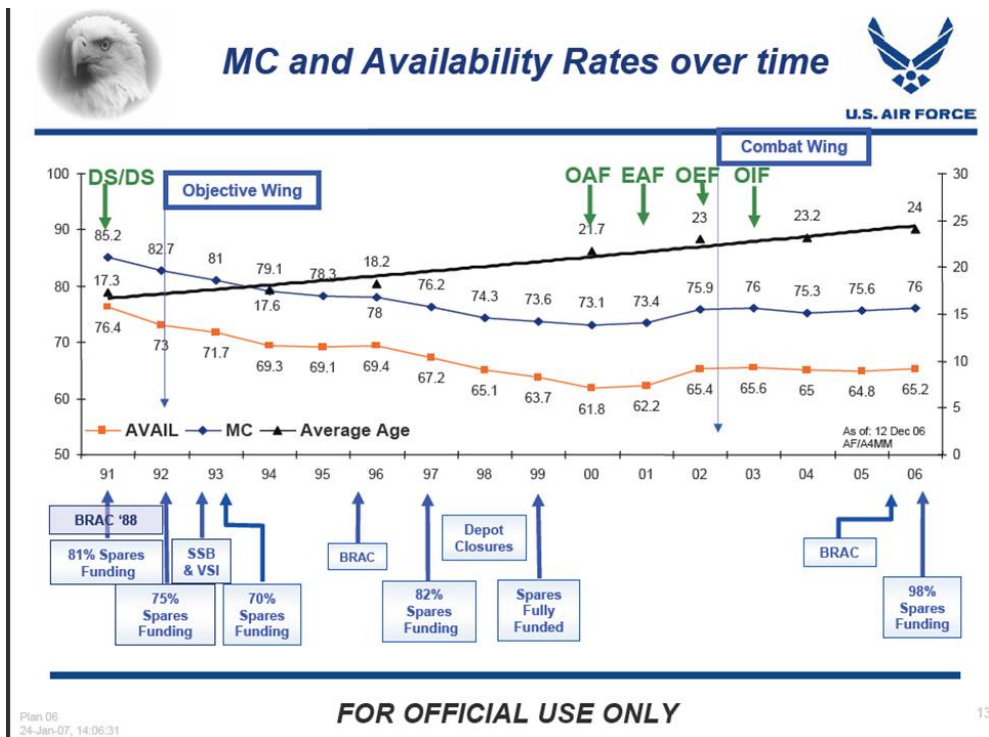




Figure 10. AFIA's Historical overview of MC and Availability rates over time, Jan 07 brief.



Leadership Development



U.S. AIR FORCE

Are we organized right to develop future flying wing and expeditionary leadership? (Wing/CC, GP/CC)

■ **What AFFWO Team Found**

- Wing Structure and Promotion Rates:
 - Pilot promotions to O-5 declined & support officer promotions increased since CWO implementation
 - However, multiple factors (recalled pilots, pilot shortage, pilots lacked PME, etc) had more relevant correlation to decline in pilot promotion rates (correlation to CWO implementation appears coincidental)
- Wing Structure and command opportunities:
 - Greater number of command opportunities for maintenance and mission support
 - Largely a function of demographics

■ **Senior Leader Input:**

- Some GOs w/CAF background concerned that future wing/CCs may have little or no experience with maintenance and leadership of enlisted personnel
- O-6/FGO positions about right; PBD 720/other force shaping impacts TBD
- Larger wings w/multiple MDS may need additional O-6 deputy in OG and MSG

■ **Conclusion:**


- No conclusive evidence that organization has a measurable impact on developing flying wing and/or expeditionary leadership

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Figure 11. AFIA findings on leadership development, Jan 07 brief.



Re-Org: Turbulence vs. Benefit



U.S. AIR FORCE

Would benefits of reorganization, if necessary, outweigh turbulence?

■ **What AFFWO Team Found:**

- No evidence combat capability or leadership development would be hindered or improved through re-organization at this time
- Opportunity cost ... effort and time that might otherwise be spent on other AFSO21 events/initiatives with a higher return on time investment

■ **Senior Leader Input:**

- While majority of interview/questionnaire respondents are comfortable with the current organization, they will support change if deemed necessary
- Diverse viewpoints with slight majority favoring one or more of the following adjustments to CWO:
 - Flight line maintenance under OG
 - Fuels & flight line supply to MXG
 - Combine OG & MXG into a single group (e.g., Fighter Gp in Fighter Wg, Bomber Gp in Bomber Wg, etc.)

■ **Conclusion:**


- Benefits of suggested changes would not outweigh the turbulence in the near term

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Figure 12. AFIA analysis on reorganization turbulence vs. benefits, Jan 07 brief.



SUMMARY of AFFWO CONCLUSIONS



- No significant concerns regarding alignment of home station/expeditionary wing organizational structure
- No conclusive evidence that either (Objective Wing or Combat Wing) Organizational structure had/has a measurable impact (positive or negative) on combat effectiveness
- No conclusive evidence to support changing LRS
- No conclusive evidence that organization has a measurable impact on developing flying wing and/or expeditionary leadership
- No convincing evidence Intel should be realigned
 - Under current construct, Intel career development concerns best addressed by A2
- Benefits of reorganizing operational flying wings would not outweigh the turbulence in the near term

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Figure 13. AFIA initial findings during Jan 07 update brief.

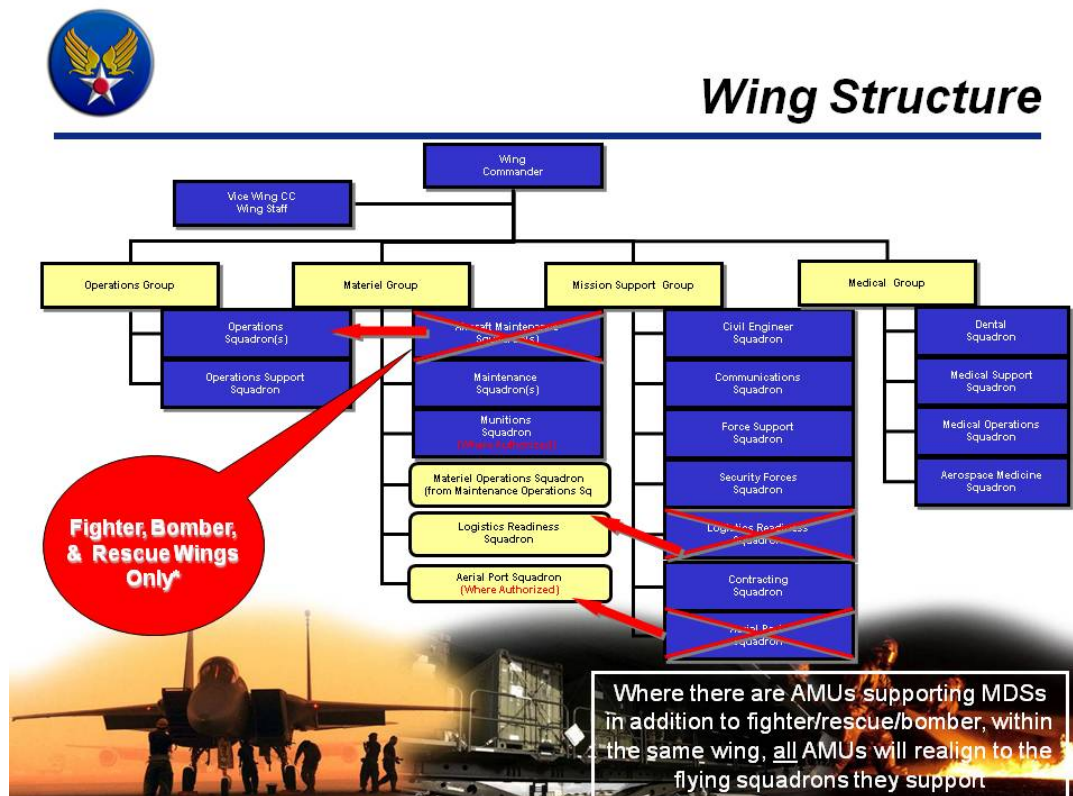


Figure 14. Wing structure that was slated for CAF units beginning Jul 08.



New Operations Group (Fighter, Rescue, and Bomber only)

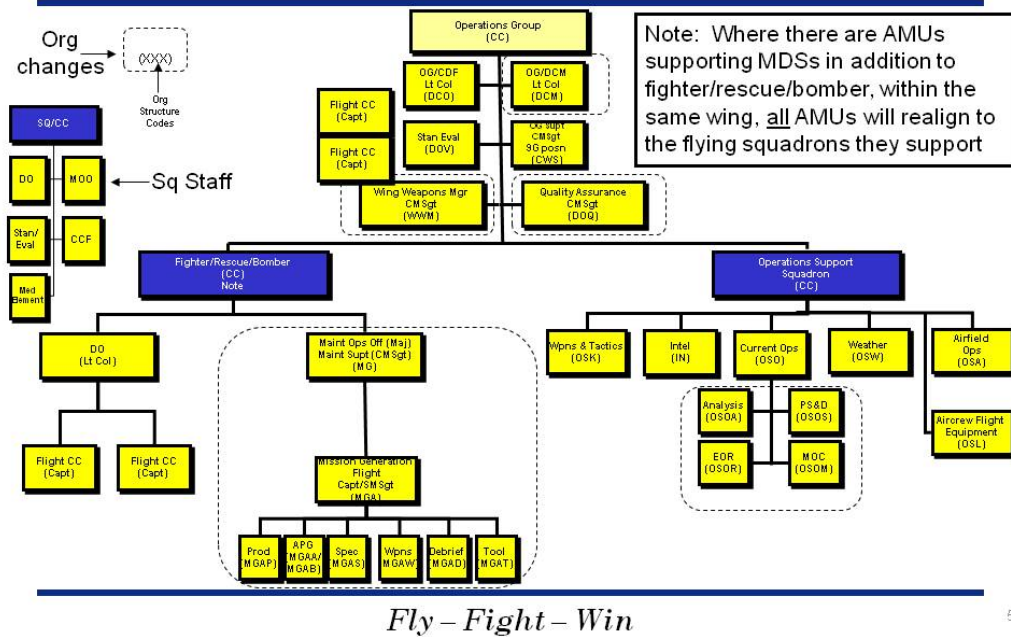


Figure 15. Operations Group structure that was slated for CAF units beginning Jul 08.

Appendix B: Bios

GENERAL WILBUR L. "BILL" CREECH

Retired Jan. 1, 1985. Died Aug. 26, 2003.

General W.L. Creech is the commander of Tactical Air Command with headquarters at Langley Air Force Base, Va. The command directs the activities of two numbered air forces, three centers and seven air divisions. More than 111,300 military and civilian personnel are assigned to 32 Tactical Air Command bases in the United States, Panama, Okinawa and Iceland. Tactical Air Command is the gaining organization for 58,300 Air National Guard and Air Force Reserve personnel in 149 major units throughout the United States.

General Creech was born in Argyle, Mo., in 1927. He has a bachelor of science degree from the University of Maryland, a master's degree in international relations from The George Washington University, and graduated from the National War College in 1966. He received his wings and commission in September 1949 as a distinguished graduate of flying training school.



His first operational assignment was with the 51st Fighter Wing at Naha, Okinawa. During the Korean War he flew with the 51st Wing from Kimpo Air Base and completed 103 combat missions over North Korea. He also served a combat tour of duty as a forward air controller with the U.S. Army's 27th Infantry Regiment, 25th Infantry Division.

In July 1951 General Creech was assigned as a flight commander at Luke Air Force Base near Phoenix, Ariz., where, for the next two and one-half years, he taught advanced gunnery to students from 14 nations. In November 1953 he joined the U.S. Air Force Aerial Demonstration Team, the Thunderbirds, and flew 125 official aerial demonstrations over the United States and Central America.

In January 1956 he became commander and leader of the U.S. Air Forces in Europe Aerial Demonstration Team, the Skyblazers, based at Bitburg, Germany. By December 1959 he had flown 399 official aerial demonstrations with this team throughout Europe, North Africa and the Middle East.

In June 1960 General Creech was named director of operations, U.S. Air Force Fighter Weapons School at Nellis Air Force Base, Las Vegas, Nev., where he served until February 1962. He then was assigned as a special adviser to the commander of the Argentine air force in Buenos Aires.

From August 1962 to August 1965, he was executive and aide to the commander of Tactical Air

Command, Langley Air Force Base. In August 1965 he entered the National War College at Fort Lesley J. McNair, Washington, D.C. Upon graduation in June 1966, he was selected to be a staff assistant in the Office of the Secretary of Defense.

General Creech transferred to the Republic of Vietnam in November 1968 as deputy commander for operations of the 37th Tactical Fighter Wing, Phu Cat Air Base. After six months with the wing, during which he flew 177 combat missions, he became assistant deputy chief of staff for operations, Headquarters Seventh Air Force in Saigon.

In November 1969 General Creech was assigned to U.S. Air Forces in Europe and successively commanded two tactical fighter wings. After one year as commander of the 86th Tactical Fighter Wing at Zweibrücken, Germany, he became the commander of the 401st Tactical Fighter Wing at Madrid, Spain. From August 1971 until August 1974, General Creech served as deputy chief of staff for operations and intelligence, Headquarters U.S. Air Forces in Europe at Wiesbaden and Ramstein, Germany.

General Creech was assigned to Air Force Systems Command in September 1974 as vice commander of Aeronautical Systems Division at Wright-Patterson Air Force Base, Dayton, Ohio, and in October 1974 was appointed commander of the Electronic Systems Division, Boston, Mass. The Electronic Systems Division manages the complex development and acquisition of command, control and communications equipment to meet the worldwide needs of the Air Force and other Department of Defense agencies.

After two and one-half years as commander of Electronic Systems Division, General Creech was transferred to Washington, D.C., where he served concurrently as the assistant vice chief of staff, assistant to the Chief of Staff for Readiness and North Atlantic Treaty Organization matters and senior U.S. Air Force member, Military Staff Committee, United Nations. He assumed his present position on May 1, 1978.

He is a command pilot, experienced in 40 different military fighter, cargo and reconnaissance aircraft. His military decorations and awards include the Distinguished Service Medal with oak leaf cluster, Silver Star, Legion of Merit with two oak leaf clusters, Distinguished Flying Cross with three oak leaf clusters, Air Medal with 14 oak leaf clusters, Air Force Commendation Medal with two oak leaf clusters, Army Commendation Medal, Republic of Vietnam Air Service Medal (Honor Class), Spanish Grand Cross of Aeronautical Merit with white ribbon and Republic of Korea Order of National Security Merit Tong Il Medal.

He was promoted to general May 1, 1978, with same date of rank.

GENERAL MERRILL A. MCPEAK

Retired Nov. 1, 1994.

General Merrill A. McPeak is chief of staff of the U.S. Air Force, Washington, D.C. As chief, he serves as the senior uniformed Air Force officer responsible for the organization, training and equipping of a combined active duty, Guard, Reserve and civilian force of over 850,000 people serving at approximately 1,300 locations in the United States and overseas. As a member of the Joint Chiefs of Staff, he and the other service chiefs function as military advisers to the secretary of defense, National Security Council and the president.



The general entered the Air Force in 1957 as a distinguished graduate of the San Diego State College ROTC program. He has commanded an Air Force wing, a numbered Air Force and, before becoming Air Force chief of staff, commanded the Pacific Air Forces, a major command. He is a command pilot, having flown more than 6,000 hours, principally in fighter aircraft. He flew two years as a solo pilot for the elite aerial demonstration team, the Thunderbirds, and flew as an attack pilot and high-speed forward air controller in Vietnam.

EDUCATION

1957 Bachelor of arts degree in economics, San Diego State College
1970 Armed Forces Staff College, Norfolk, Va.
1974 Master's degree in international relations, George Washington University
1974 National War College, Fort Lesley J. McNair, Washington, D.C.
1979 The Executive Development Program, University of Michigan Graduate School of Business

ASSIGNMENTS

1. November 1957 - January 1958, student, Officer Preflight Training, Lackland Air Force Base, Texas
2. January 1958 - January 1959, student, pilot training, Hondo Air Base, Texas, and Vance Air Force Base, Okla.
3. February 1959 - December 1959, student, F-100 combat crew training, Luke Air Force Base, Ariz., and Nellis Air Force Base, Nev.
4. December 1959 - August 1961, F-104C fighter pilot, 436th Tactical Fighter Squadron, George Air Force Base, Calif.
5. August 1961 - May 1964, F-100D fighter pilot, 79th Tactical Fighter Squadron, Royal Air Force Station Woodbridge, England
6. May 1964 - August 1965, fighter staff officer, tactical evaluation division, Headquarters 3rd Air Force, South Ruislip Air Station, England
7. September 1965 - December 1966, F-104G instructor pilot, 4443rd Combat Crew Training Squadron; later, F-104G weapons officer, 4510th Combat Crew Training Wing, Luke Air Force Base, Ariz.
8. December 1966 - December 1968, demonstration pilot, U.S. Air Force Air Demonstration Squadron,

the Thunderbirds, Nellis Air Force Base, Nev.

9. December 1968 - January 1969, F-100D fighter pilot, 612th Tactical Fighter Squadron, Phu Cat Air Base, Republic of Vietnam

10. January 1969 - August 1969, operations officer, later commander, Operation Commando Sabre (Misty Fast FACs), Phu Cat Air Base, Republic of Vietnam

11. August 1969 - December 1969, chief, standardization and evaluation division, 31st Tactical Fighter Wing, Tuy Hoa Air Base, Republic of Vietnam

12. January 1970 - July 1970, student, Armed Forces Staff College, Norfolk, Va.

13. August 1970 - August 1973, air operations staff officer, Mideast Division, directorate of plans and policy, Headquarters U.S. Air Force, Washington, D.C.

14. August 1973 - June 1974, student, National War College, Fort Lesley J. McNair, Washington, D.C.

15. June 1974 - April 1975, assistant deputy commander for operations, 1st Tactical Fighter Wing, MacDill Air Force Base, Fla.

16. April 1975 - June 1975, student, French language training (en route for duty as air attache to Republic of Cambodia), Foreign Service Institute, Washington, D.C.

17. July 1975 - June 1976, military fellow, Council on Foreign Relations, New York City

18. July 1976 - July 1977, commander, 513th Combat Support Group, Royal Air Force Station Mildenhall, England

19. July 1977 - July 1978, vice commander, 406th Tactical Fighter Training Wing, Zaragoza Air Base, Spain

20. July 1978 - February 1980, assistant chief of staff, current operations, Allied Air Forces Central Europe, Boerfink, West Germany

21. February 1980 - June 1981, commander, 20th Tactical Fighter Wing, Royal Air Force Station Upper Heyford, England

22. June 1981 - October 1982, chief of staff, Headquarters U.S. Air Forces in Europe, Ramstein Air Base, West Germany

23. October 1982 - May 1985, deputy chief of staff, plans, Headquarters Tactical Air Command, Langley Air Force Base, Va.

24. May 1985 - June 1987, deputy chief of staff, programs and resources, Headquarters U.S. Air Force, Washington, D.C.

25. June 1987 - July 1988, commander, 12th Air Force and commander, U.S. Southern Command Air Forces, Bergstrom Air Force Base, Texas

26. July 1988 - October 1990, commander in chief, Pacific Air Forces, Hickam Air Force Base, Hawaii

27. October 1990 - October 1994, chief of staff, U.S. Air Force, Washington, D.C.

FLIGHT INFORMATION

Rating: Command pilot, parachutist

Flight hours: More than 6,000

Aircraft flown: F-4, F-15, F-16, F-100, F-104, F-111

Pilot wings from: Germany, Spain, Mexico, Thailand, Yugoslavia France, Israel, Russia, Bulgaria, Venezuela and Poland

MAJOR AWARDS AND DECORATIONS

Distinguished Service Medal

Silver Star

Legion of Merit with oak leaf cluster

Distinguished Flying Cross with oak leaf cluster

Meritorious Service Medal

Air Medal with 13 oak leaf clusters

Air Force Commendation Medal with three oak leaf clusters
Vietnam Service Medal with four service stars
Republic of Vietnam Gallantry Cross with Palm

PUBLICATIONS

"Training and Discipline, Keys to Maximum Performance," TAC ATTACK, August 1968
"Israel: Borders and Security," Foreign Affairs, April 1976
"TAC Air Missions and the Fire Support Coordination Line," Air University Review, Sept. - Oct. 1985
"For the Composite Wing," Air Power Journal, Fall 1990

EFFECTIVE DATES OF PROMOTION

Second Lieutenant June 19, 1957
First Lieutenant May 30, 1959
Captain Oct. 1, 1962
Major May 20, 1968
Lieutenant Colonel Nov. 1, 1972
Colonel April 1, 1974
Brigadier General July 1, 1981
Major General Oct. 1, 1983
Lieutenant General May 22, 1985
General Aug. 1, 1988

(Current as of May 1993)

GENERAL MICHAEL E. RYAN

Retired Oct. 1, 2001.

General Michael E. Ryan is Chief of Staff of the U.S. Air Force, Washington, D.C. As Chief, he serves as the senior uniformed Air Force officer responsible for the organization, training and equipping of 700,000 active-duty, Guard, Reserve and civilian forces serving in the United States and overseas. As a member of the Joint Chiefs of Staff, he and the other service chiefs function as military advisers to the secretary of defense, National Security Council and the president.

The general entered the Air Force after graduating from the U.S. Air Force Academy in 1965. He has commanded at the squadron, wing, numbered air force and major command levels. He flew combat in Southeast Asia, including 100 missions over North Vietnam. He also served in staff assignments at the major command level, Headquarters U.S. Air Force and the Joint Staff. As Commander of 16th Air Force and Allied Air Forces Southern Europe in Italy, he directed the NATO air combat operations in Bosnia-Herzegovina which directly contributed to the Dayton Peace Accords.



Before assuming his current position, the general was Commander of U.S. Air Forces in Europe and Commander, Allied Air Forces Central Europe, with headquarters at Ramstein Air Base, Germany.

EDUCATION

1965 Bachelor of science degree, U.S. Air Force Academy, Colorado Springs, Colo.
1969 Squadron Officer School, Maxwell Air Force Base, Ala.
1970 Fighter Weapons Instructor Course, Nellis Air Force Base, Nev.
1976 Air Command and Staff College, Maxwell Air Force Base, Ala.
1976 Master's degree in business administration, Auburn University, Auburn, Ala.
1984 National War College, Fort Lesley J. McNair, Washington, D.C.
1988 National Security Program, John F. Kennedy School of Government, Harvard University, Cambridge, Mass.

ASSIGNMENTS

1. June 1965 - September 1966, student, undergraduate pilot training, 3625th Student Squadron, Air Training Command, Craig Air Force Base, Ala.
2. September 1966 - October 1967, F-4 pilot, 16th Tactical Fighter Squadron, Eglin Air Force Base, Fla.
3. October 1967 - August 1968, F-4 pilot and aircraft commander, 13th Tactical Fighter Squadron, Udorn Royal Thai Air Force Base, Thailand
4. August 1968 - January 1971, F-4 aircraft commander, 7th Tactical Fighter Squadron, Holloman Air Force Base, N.M.
5. January 1971 - July 1973, exchange officer instructing in Mirage III fighters, 2nd Operational Conversion Unit, Australian Air Force Base, Williamtown, Australia
6. July 1973 - September 1974, instructor pilot and flight commander, 311th Tactical Fighter Training Squadron, Luke Air Force Base, Ariz.
7. September 1974 - August 1975, wing weapons officer, 8th Tactical Fighter Wing (F-4s), Kunsan Air Base, South Korea

8. August 1975 - July 1976, student, Air Command and Staff College, Maxwell Air Force Base, Ala.
9. July 1976 - April 1979, staff officer, Office of the Deputy Chief of Staff for Plans, Headquarters Tactical Air Command, Langley Air Force Base, Va.
10. April 1979 - August 1981, commander, 61st Tactical Fighter Squadron; then assistant deputy commander for operations (F-16s), 56th Tactical Fighter Wing, MacDill Air Force Base, Fla.
11. August 1981 - August 1983, chief, CHECKMATE group; then deputy assistant director for Joint and National Security Matters, Office of the Deputy Chief of Staff for Plans and Operations, Headquarters U.S. Air Force, Washington, D.C.
12. August 1983 - June 1984, student, National War College, Fort Lesley J. McNair, Washington, D.C.
13. June 1984 - June 1986, commander, 432nd Tactical Fighter Wing, Misawa Air Base, Japan
14. June 1986 - June 1988, executive to the chief of staff, Headquarters U.S. Air Force, Washington, D.C.
15. June 1988 - July 1991, deputy chief of staff, plans; then deputy chief of staff, operations, Headquarters Tactical Air Command, Langley Air Force Base, Va.
16. July 1991 - May 1993, vice director for strategic plans and policy, the Joint Staff, Washington, D.C.
17. May 1993 - September 1994, assistant to the chairman, Joint Chiefs of Staff, Washington, D.C.
18. September 1994 - April 1996, commander, Allied Air Forces Southern Europe (NATO), Naples, Italy, and commander, 16th Air Force, U.S. Air Forces in Europe, Aviano Air Base, Italy
19. April 1996 - October 1997, commander, U.S. Air Forces in Europe and commander, Allied Air Forces Central Europe, Ramstein Air Base, Germany
20. October 1997 - September 2001, chief of staff, Headquarters U.S. Air Force, Washington, D.C.

FLIGHT INFORMATION

Rating: Command pilot

Flight hours: More than 4,130 including 153 combat missions

Aircraft flown: T-37, T-33, F-4C/D/E, Mirage III, Aermacchi 326, F-16A/B/C/D and C-20

MAJOR AWARDS AND DECORATIONS

Defense Distinguished Service Medal with two oak leaf clusters

Air Force Distinguished Service Medal with oak leaf cluster

Army Distinguished Service Medal

Navy Distinguished Service Medal

Coast Guard Distinguished Service Medal

Legion of Merit with two oak leaf clusters

Distinguished Flying Cross

Meritorious Service Medal with two oak leaf clusters

Air Medal with 11 oak leaf clusters

Air Force Commendation Medal with two oak leaf clusters

Air Force Organizational Excellence Award with five oak leaf clusters

Vietnam Service Medal with three service stars

Aeronautical Grand Meritorious Cross, Chile

Korean Order of National Security Merit, First Class

Grand Cordon of the Order of the Rising Sun, Japan

Decoration of the Order of the Sacred Treasure, Japan

Knight Grand Cross (First Class) of the Most Noble Order of the Crown of Thailand

Knight Commander's Cross of the Order of Merit of the Federal Republic of Germany

Legion of Merit for Aerial Inter-American Confraternity in the Grade of Officer, SICOFAA

Grand Cross of Aeronautical Merit, Spain

Meritorious Service Medal (Military), Singapore

Order of Aeronautical Merit, Brazil

French National Order of the Legion of Honor (Rank of Commander)

Order of the Orange-Nassau (Rank of Commander)

EFFECTIVE DATES OF PROMOTION

Second Lieutenant Jun 9, 1965

First Lieutenant Dec 9, 1966

Captain Jun 13, 1968

Major Jun 1, 1976
Lieutenant Colonel Apr 1, 1979
Colonel Jul 1, 1981
Brigadier General May 1, 1988
Major General Jan 1, 1991
Lieutenant General May 10, 1993
General Apr 4, 1996

(Current as of September 2001)

GENERAL JOHN P. JUMPER

Retired Nov. 1, 2005.

Gen. John P. Jumper is Chief of Staff of the U.S. Air Force, Washington, D.C. As Chief, he serves as the senior uniformed Air Force officer responsible for the organization, training and equipping of more than 700,000 active-duty, Guard, Reserve and civilian forces serving in the United States and overseas. As a member of the Joint Chiefs of Staff, the general and other service chiefs function as military advisers to the Secretary of Defense, National Security Council and the President.

General Jumper was born in Paris, Texas. He earned his commission as a distinguished graduate of Virginia Military Institute's ROTC program in 1966. He has commanded a fighter squadron, two fighter wings, a numbered Air Force, and U.S. Air Forces in Europe and Allied Air Forces Central Europe. Prior to assuming his current position, the general served as Commander of Air Combat Command at Langley Air Force Base, Va.



He has also served at the Pentagon as Deputy Chief of Staff for Air and Space Operations, as the Senior Military Assistant to two secretaries of defense, and as Special Assistant to the Chief of Staff for Roles and Missions. General Jumper has been involved in numerous major combat and contingency operations since he entered service in 1966. He served two tours of duty in Southeast Asia. He was the commander of U.S. Central Command Air Forces during operations Northern and Southern Watch, and the commander of U.S. Air Forces in Europe during Operation Allied Force. His tour as Chief of Staff has spanned operations Enduring Freedom and Iraqi Freedom. He is a command pilot with more than 5,000 flying hours, including 1,400 combat hours.

EDUCATION

1966 Bachelor of Science degree in electrical engineering, Virginia Military Institute, Lexington
1975 Squadron Officer School, Maxwell AFB, Ala.
1978 Air Command and Staff College, Maxwell AFB, Ala.
1979 Master of business administration degree, Golden Gate University, San Francisco, Calif.
1982 National War College, Fort Lesley J. McNair, Washington, D.C.

ASSIGNMENTS

1. June 1966 - July 1967, student pilot, 3550th Student Squadron, Moody AFB, Ga.
2. July 1967 - September 1967, C-7 upgrade training, Sewart AFB, Tenn.
3. October 1967 - October 1968, C-7 pilot, 459th Tactical Airlift Squadron, Phu Cat Air Base, South Vietnam
4. November 1968 - July 1969, F-4 upgrade training, 431st Tactical Fighter Squadron, George AFB, Calif.
5. July 1969 - May 1970, instructor pilot, weapons officer and fast forward air controller, 555th Tactical

Fighter Squadron, Udorn Royal Thai AFB, Thailand

6. June 1970 - July 1974, instructor pilot, flight examiner and standardization and evaluation chief, 81st Tactical Fighter Wing, Royal Air Force Bentwaters, England

7. July 1974 - August 1977, flight instructor, later, flight commander, U.S. Air Force Fighter Weapons School, Nellis AFB, Nev.

8. August 1977 - June 1978, student, Air Command and Staff College, Maxwell AFB, Ala.

9. June 1978 - August 1981, Staff Officer for Operations and Readiness, Tactical Division, Headquarters U.S. Air Force, Washington, D.C.

10. August 1981 - July 1982, student, National War College, Fort Lesley J. McNair, Washington, D.C.

11. July 1982 - February 1983, Chief of Safety, 474th Tactical Fighter Wing, Nellis AFB, Nev.

12. March 1983 - July 1983, Commander, 430th Tactical Fighter Squadron, Nellis AFB, Nev.

13. July 1983 - August 1986, Special Assistant and Executive Officer to the Commander, Headquarters Tactical Air Command, Langley AFB, Va.

14. August 1986 - February 1988, Vice Commander, later, Commander, 33rd Tactical Fighter Wing, Eglin AFB, Fla.

15. February 1988 - May 1990, Commander, 57th Fighter Weapons Wing, Nellis AFB, Nev.

16. June 1990 - April 1992, Deputy Director for Politico-Military Affairs, Strategic Plans and Policy Directorate, the Joint Staff, Washington, D.C.

17. May 1992 - February 1994, Senior Military Assistant to the Secretary of Defense, Washington, D.C.

18. February 1994 - July 1994, Special Assistant to the Air Force Chief of Staff for Roles and Missions, Washington, D.C.

19. August 1994 - June 1996, Commander, 9th Air Force and U.S. Central Command Air Forces, Shaw AFB, S.C.

20. June 1996 - November 1997, Deputy Chief of Staff for Air and Space Operations, Headquarters U.S. Air Force, Washington, D.C.

21. December 1997 - February 2000, Commander, U.S. Air Forces in Europe, and Commander, Allied Air Forces Central Europe, Ramstein AB, Germany

22. February 2000 - September 2001, Commander, Headquarters ACC, Langley AFB, Va.

23. September 2001 - September 2005, Chief of Staff, Headquarters U.S. Air Force, Washington, D.C.

FLIGHT INFORMATION

Rating: Command pilot

Flight hours: More than 5,000

Aircraft flown: C-7, C-17, C-20, C-37, T-37, T-38, F-4, F-15, F-16 and F/A-22

MAJOR AWARDS AND DECORATIONS

Defense Distinguished Service Medal with two oak leaf clusters

Air Force Distinguished Service Medal with two oak leaf clusters

Army Distinguished Service Medal

Navy Distinguished Service Medal

Coast Guard Distinguished Service Medal

Defense Superior Service Medal

Legion of Merit with oak leaf cluster

Distinguished Flying Cross with two oak leaf clusters

Meritorious Service Medal with two oak leaf clusters

Air Medal with 17 oak leaf clusters

Vietnam Service Medal with five bronze stars

Legion of Honor (France)

Republic of Vietnam Campaign Medal

OTHER ACHIEVEMENTS

2000 Air Force Order of the Sword, U.S. Air Forces in Europe

EFFECTIVE DATES OF PROMOTION

Second Lieutenant June 12, 1966

First Lieutenant Dec. 12, 1967

Captain June 12, 1969

Major Jan. 1, 1978

Lieutenant Colonel Oct. 1, 1980

Colonel Oct. 1, 1985

Brigadier General Aug. 1, 1989

Major General Feb. 1, 1992

Lieutenant General Sept. 1, 1994

General Nov. 17, 1997

(Current as of September 2005)

GENERAL T. MICHAEL MOSELEY

Retired Aug. 1, 2008.

General T. Michael Moseley is Chief of Staff of the U.S. Air Force, Washington, D.C. As Chief, he serves as the senior uniformed Air Force officer responsible for the organization, training and equipping of nearly 700,000 active-duty, Guard, Reserve and civilian forces serving in the United States and overseas. As a member of the Joint Chiefs of Staff, the general and other service chiefs function as military advisers to the Secretary of Defense, National Security Council and the President.



General Moseley graduated from Texas A&M University in 1971 with a Bachelor of Arts degree in political science. He earned a Master of Arts degree from Texas A&M University in 1972, also in political science. He has commanded the F-15 Division of the USAF Fighter Weapons School at Nellis AFB, Nev., the 33rd Operations Group at Eglin AFB, Fla., and the 57th Wing, the Air Force's largest, most diverse flying wing, also at Nellis. The general has served as the combat Director of Operations for Joint Task Force-Southwest Asia. General Moseley also commanded 9th Air Force and U.S. Central Command Air Forces while serving as Combined Forces Air Component Commander for operations Southern Watch, Enduring Freedom and Iraqi Freedom. The general is a member of the Council on Foreign Relations. He has been awarded the Knight Commander of the Most Excellent Order of the British Empire, the Order of National Merit (Officer) and the Order of National Merit (Commander) by the president of the French Republic, which is the second highest French military award. He has also been awarded the United Arab Emirates' Military Medal, 1st Class, by the president of the U.A.E., the Mérito Santos-Dumont from the Brazilian Air Force, and the Republic of Singapore Meritorious Service Medal.

General Moseley's staff assignments have been a mix of operational, joint and personnel duties. These include serving in Washington, D.C., as Director for Legislative Liaison for the Secretary of the Air Force; Deputy Director for Politico-Military Affairs for Asia/Pacific and Middle East, the Joint Chiefs of Staff; Chief of the Air Force General Officer Matters Office; Chief of Staff of the Air Force Chair and Professor of Joint and Combined Warfare at the National War College; and Chief of the Tactical Fighter Branch, Tactical Forces Division, Directorate of Plans, Headquarters U.S. Air Force.

EDUCATION

1971 Bachelor of Arts degree in political science, Texas A&M University, College Station
1972 Master of Arts degree in political science, Texas A&M University, College Station
1977 Squadron Officer School, Maxwell AFB, Ala.
1981 Fighter Weapons Instructor Course, U.S. Air Force Fighter Weapons School, Nellis AFB, Nev.
1984 Air Command and Staff College, Maxwell AFB, Ala.
1988 U.S. Air Force Joint Senior Battle Commander's Course, Hurlburt Field, Fla.
1990 National War College, Fort Lesley J. McNair, Washington, D.C.

2000 Combined Force Air Component Commander Course, Maxwell AFB, Ala., and Hurlburt Field, Fla.

ASSIGNMENTS

1. June 1972 - May 1973, student, undergraduate pilot training, Webb AFB, Texas
2. May 1973 - July 1977, T-37 instructor pilot and spin flight test pilot; flight check pilot, and standardization and evaluation flight examiner, 3389th Flying Training Squadron, 78th Flying Training Wing, Webb AFB, Texas
3. July 1977 - September 1979, F-15 instructor pilot, flight lead and mission commander, 7th Tactical Fighter Squadron, Holloman AFB, N.M.
4. September 1979 - August 1983, F-15 weapons and tactics officer, instructor pilot, and flight lead and mission commander; standardization and evaluation/ flight examiner, 44th Tactical Fighter Squadron and 12th Tactical Fighter Squadron, Kadena Air Base, Japan
5. August 1983 - June 1984, course officer, Air Command and Staff College, Maxwell AFB, Ala.
6. June 1984 - June 1987, Chief, Tactical Fighter Branch, Tactical Forces Division, Directorate of Plans, Deputy Chief of Staff for Plans and Operations, Headquarters U.S. Air Force, Washington, D.C.
7. June 1987 - June 1989, Commander, F-15 Division, and instructor pilot, Fighter Weapons Instructor Course, U.S. Air Force Fighter Weapons School, Nellis AFB, Nev.
8. June 1989 - June 1990, course officer, National War College, Fort Lesley J. McNair, Washington, D.C.
9. June 1990 - August 1992, Chief of Staff of the Air Force chair and professor of Joint and Combined Warfare, National War College, Fort Lesley J. McNair, Washington, D.C.
10. August 1992 - January 1994, Commander, 33rd Operations Group, Eglin AFB, Fla.
11. January 1994 - May 1996, Chief, Air Force General Officer Matters Office, Headquarters U.S. Air Force, Washington, D.C.
12. May 1996 - November 1997, Commander, 57th Wing, Nellis AFB, Nev.
13. November 1997 - July 1999, Deputy Director for Politico-Military Affairs, Asia/Pacific and Middle East, Directorate for Strategic Plans and Policy, the Joint Chiefs of Staff, Washington, D.C.
14. July 1999 - October 2001, Director, Legislative Liaison, Office of the Secretary of the Air Force, Headquarters U.S. Air Force, Washington, D.C.
15. November 2001 - August 2003, Commander, 9th Air Force and U.S. Central Command Air Forces, Shaw AFB, S.C.
16. August 2003 - September 2005, Vice Chief of Staff, Headquarters U.S. Air Force, Washington, D.C.
17. September 2005 - July 2008, Chief of Staff, Headquarters U.S. Air Force, Washington, D.C.

FLIGHT INFORMATION

Rating: Command pilot

Flight hours: More than 2,800

Aircraft flown: T-37, T-38, AT-38 and F-15A/B/C/D

MAJOR AWARDS AND DECORATIONS

Defense Distinguished Service Medal with oak leaf cluster

Air Force Distinguished Service Medal with two oak leaf clusters

Army Distinguished Service Medal

Navy Distinguished Service Medal

Coast Guard Distinguished Service Medal

Defense Superior Service Medal with oak leaf cluster

Legion of Merit with oak leaf cluster

Meritorious Service Medal with three oak leaf clusters

Air Medal

Joint Service Commendation Medal

Air Force Commendation Medal
Air Force Achievement Medal
Global War on Terrorism Expeditionary Medal
Global War on Terrorism Service Medal
Korea Defense Service Medal
Knight Commander of the Most Excellent Order of the British Empire
French National Order of Merit (Commander)
French National Order of Merit (Officer)
United Arab Emirates' Military Medal, 1st Class
Mérito Santos-Dumont, Brazilian Air Force
Republic of Singapore Meritorious Service Medal (Military)

OTHER ACHIEVEMENTS

2003 H.H. Arnold Award, the Air Force Association's highest honor to a military member in the field of National Security
2004 Sergeant William Jasper Freedom Award for contributions in maintaining freedom
2005 U.S. Air Force Sergeant's Association Excellence in Military Leadership
2005 James V. Hartinger Award for significant achievements in advancing the military space mission
2005 Inducted into the Texas A&M Corps of Cadets Hall of Honor

EFFECTIVE DATES OF PROMOTION

Second Lieutenant July 9, 1971
First Lieutenant July 9, 1974
Captain Jan. 9, 1976
Major Oct. 1, 1983
Lieutenant Colonel March 1, 1986
Colonel April 1, 1991
Brigadier General Dec. 1, 1996
Major General Feb. 1, 2000
Lieutenant General Nov. 7, 2001
General Oct. 1, 2003

(Current as of July 2008)

GENERAL NORTON A. SCHWARTZ

Gen. Norton A. Schwartz is Chief of Staff of the U.S. Air Force, Washington, D.C. As Chief, he serves as the senior uniformed Air Force officer responsible for the organization, training and equipping of nearly 700,000 active-duty, Guard, Reserve and civilian forces serving in the United States and overseas. As a member of the Joint Chiefs of Staff, the general and other service chiefs function as military advisers to the Secretary of Defense, National Security Council and the President.



General Schwartz graduated from the U.S. Air Force Academy in 1973. He is an alumnus of the National War College, a member of the Council on Foreign Relations, and a 1994 Fellow of Massachusetts Institute of Technology's Seminar XXI. He has served as Commander of the Special Operations Command-Pacific, as well as Alaskan Command, Alaskan North American Aerospace Defense Command Region, and the 11th Air Force. Prior to assuming his current position, General Schwartz was Commander, U.S. Transportation Command and served as the single manager for global air, land and sea transportation for the Department of Defense.

General Schwartz is a command pilot with more than 4,400 flying hours in a variety of aircraft. He participated as a crewmember in the 1975 airlift evacuation of Saigon, and in 1991 served as Chief of Staff of the Joint Special Operations Task Force for Northern Iraq in operations Desert Shield and Desert Storm. In 1997, he led the Joint Task Force that prepared for the noncombatant evacuation of U.S. citizens in Cambodia.

EDUCATION

1973 Bachelor's degree in political science and international affairs, U.S. Air Force Academy, Colorado Springs, Colo.

1977 Squadron Officer School, Maxwell AFB, Ala.

1983 Master's degree in business administration, Central Michigan University, Mount Pleasant

1984 Armed Forces Staff College, Norfolk, Va.

1989 National War College, Fort Lesley J. McNair, Washington, D.C.

1994 Fellow, Seminar XXI, Massachusetts Institute of Technology, Cambridge

ASSIGNMENTS

1. August 1973 - September 1974, student, undergraduate pilot training, Laughlin AFB, Texas
2. October 1974 - January 1975, student, C-130 initial qualification training, Little Rock AFB, Ark.
3. February 1975 - October 1977, C-130E aircraft commander, 776th and 21st tactical airlift squadrons, Clark Air Base, Philippines
4. October 1977 - December 1977, student, Squadron Officer School, Maxwell AFB, Ala.
5. December 1977 - October 1979, C-130E/H flight examiner, 61st Tactical Airlift Squadron, Little Rock

AFB, Ark.

6. October 1979 - November 1980, intern, Air Staff Training Program, Office of the Deputy Chief of Staff for Plans, Operations and Readiness, Headquarters U.S. Air Force, Washington, D.C.

7. November 1980 - July 1983, MC-130E flight examiner, 8th Special Operations Squadron, Hurlburt Field, Fla.

8. July 1983 - January 1984, student, Armed Forces Staff College, Norfolk, Va.

9. January 1984 - April 1986, action officer, Directorate of Plans, Office of the Deputy Chief of Staff for Plans and Operations, Headquarters U.S. Air Force, Washington, D.C.

10. May 1986 - June 1988, Commander, 36th Tactical Airlift Squadron, McChord AFB, Wash.

11. August 1988 - June 1989, student, National War College, Fort Lesley J. McNair, Washington, D.C.

12. July 1989 - July 1991, Director of Plans and Policy, Special Operations Command Europe, Patch Barracks, Stuttgart-Vaihingen, Germany

13. August 1991 - May 1993, Deputy Commander for Operations and Commander, 1st Special Operations Group, Hurlburt Field, Fla.

14. May 1993 - May 1995, Deputy Director of Operations, later, Deputy Director of Forces, Office of the Deputy Chief of Staff for Plans and Operations, Headquarters U.S. Air Force, Washington, D.C.

15. June 1995 - May 1997, Commander, 16th Special Operations Wing, Hurlburt Field, Fla.

16. June 1997 - October 1998, Commander, Special Operations Command, Pacific, Camp H.M. Smith, Hawaii

17. October 1998 - January 2000, Director of Strategic Planning, Deputy Chief of Staff for Plans and Programs, Headquarters U.S. Air Force, Washington, D.C.

18. January 2000 - September 2000, Deputy Commander in Chief, U.S. Special Operations Command, MacDill AFB, Fla.

19. September 2000 - October 2002, Commander, Alaskan Command, Alaskan North American Aerospace Defense Command Region and 11th Air Force, Elmendorf AFB, Alaska

20. October 2002 - October 2004, Director for Operations, the Joint Staff, Washington, D.C.

21. October 2004 - August 2005, Director, the Joint Staff, Washington, D. C.

22. September 2005 - August 2008, Commander, U.S. Transportation Command, Scott AFB, Ill.

23. August 2008 - present, Chief of Staff, Headquarters U.S. Air Force, Washington, D.C.

FLIGHT INFORMATION

Rating: Command pilot

Flight hours: More than 4,400

Aircraft flown: C-130E/H, MC-130E/H/P, HC-130, AC-130H/U, YMC-130, MH-53 and MH-60

MAJOR AWARDS AND DECORATIONS

Defense Distinguished Service Medal with two oak leaf clusters

Distinguished Service Medal

Defense Superior Service Medal with oak leaf cluster

Legion of Merit with two oak leaf clusters

Defense Meritorious Service Medal

Meritorious Service Medal with two oak leaf clusters

Air Force Commendation Medal with oak leaf cluster

Army Commendation Medal

EFFECTIVE DATES OF PROMOTION

Second Lieutenant June 6, 1973

First Lieutenant June 6, 1975

Captain June 6, 1977

Major Nov. 1, 1982
Lieutenant Colonel March 1, 1985
Colonel Feb. 1, 1991
Brigadier General Jan. 1, 1996
Major General March 4, 1999
Lieutenant General Jan. 18, 2000
General Oct. 1, 2005

(Current as of August 2008)

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